

FURTHER NOTES ON AUSTRALIAN COLEOPTERA, WITH  
 DESCRIPTIONS OF NEW GENERA AND SPECIES.

XXXVII.

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[Read October 1, 1907.]

HYDROPHYLLIDÆ.

CERCYON.

I attribute the following species to *Cercyon* with no little doubt whether it ought not to be treated as the type of a new allied genus. But as its distinctive structural characters may perhaps be regarded as simply modifications of the *Cercyon* type, I have ventured to include it provisionally in *Cercyon*. Its tarsi are shorter and stouter than in any other *Cercyon* known to me, but notably longer than those of *Megasternum*; the basal joint of the hind tarsi only very slightly longer than the 2nd joint. The 3rd joint of the maxillary palpi is much shorter than the 4th. The middle part of the metasternum is an abruptly-elevated flat and brilliantly nitid area of obcordate shape, the rest of the segment opaque owing to the presence of very fine confluent sculpture. The mesosternal keel is long and well defined, but very narrow; linear in fact. The prosternal keel is normal. The elytra are without any trace of striation. I do not find any other distinctive character likely to be generic.

*C. kingense*, sp. nov. Ovale; nitidum; piceo-nigrum, antennis (clava excepta) palpis pedibusque rufis, corpore subtus et elytris apicem versus plus minusve rufescentibus; exemplorum nonnullorum prothorace rufescenti; capite pronotoque crebre (hujus lateribus magis sparsim) subtiliter punctulatis; elytris haud striatis, subcoriaceis et puncturis subtilissimis sed perspicuis sat crebre impressis; prothorace fortiter transverso, antice parum angustato, lateribus leviter arcuatis, angulis omnibus obtusis; carina mesosterni perangusta sat elongata, prosterni sat elevata; tarsis sat brevibus sat robustis, articulo basali quam 2<sup>us</sup> parum longiori. Long., 1-1½ l.; lat., ½ l. (vix.).

Under a microscope the coriaceous appearance of the elytra is seen to be caused by a reticulation of sharply-defined scratches.

King Island (Mr. A. M. Lea).

## CRYPTOPHAGUS.

*C. tasmanicus*, sp. nov. Elongatus; parallelus; modice convexus; pubescens; totus ferrugineus; antennis sat robustis, articulis  $9^{\circ}$   $10^{\circ}$  que fortiter transversis (hoc quam ille nonnihil longiori nonnihil latiori); capite pronotoque crebre subtilius punctulatis; hoc leviter transverso, ante scutellum plus minusve gibbo, utrinque ad angulum anticum tuberculum sat magnum ferenti, lateribus parum arcuatis haud dentatis, angulis posticis sat rectis; elytris crebre subtilius punctulatis, circa scutellum sat fortiter gibbis.

Maris tarsis heteromeris, anticis sat dilatatis: feminae tarsis pentameris simplicibus. Long., 1 l.; lat.,  $\frac{1}{4}$  l.

Resembles *C. gibbipennis*, Blackb., in the gibbosity of the elytra around the scutellum, but differs from it, *inter alia*, by the presence of a conspicuous tubercle immediately within the anterior angles of the pronotum, and by the much finer and closer puncturation of the elytra.

Tasmania (Mr. A. M. Lea).

## MYRABOLIA.

*M. longicornis*, Blackb. Two specimens from Tasmania sent by Mr. Lea differ from the type in their very small size (scarcely exceeding 1 l. in length), and by the anterior sinuation of the sides of the pronotum being scarcely traceable. It is possible that they represent a distinct species.

*M. parva*, Blackb. A Tasmanian example of *Myrabolia*, sent by Mr. Lea, is of distinctly narrower build than the type, and its prothorax is a little more strongly transverse. These differences are, perhaps, sexual.

## TROGODERMA.

*T. rigua*, Er. Among the King Island *Coleoptera* lately taken by Mr. A. M. Lea are two specimens of a *Trogoderma*, which in all probability represent this species. They agree very well with Erickson's description in every respect except the pilose markings of the elytra, and are evidently abraded. *Rigua* is described as having four fasciæ and an apical spot formed of white pilosity on its elytra. In one of the examples before me there is a subbasal white fascia, exactly as described, and obscure traces of white pilosity in other parts, which may well be the remains of fasciæ. In the other example there is scarcely any trace of fasciæ, but there are some white hairs close to the apex, which are likely to be the remains of a white spot. I am fairly confident in making this identification because *T. rigua* is described as presenting some characters unusual among the Australian *Trogodermata* which are

well marked in this insect, especially that of the large three-jointed antennal club and the very close puncturation of the pronotum. I have seen no *Trogoderma* but this one having antennæ agreeing with Erickson's description. In my tabulation of the Australian species of *Trogoderma* (Trans. Roy. Soc., S.A., 1903, p. 162) this species would stand beside *T. Adelaidea*, Blackb., from which it differs, *inter alia*, by the club of its antennæ three-jointed (at any rate in one sex), and the puncturation of its pronotum much closer still than in *Adelaidea* (entirely confluent, in fact). In a former Memoir (Tr.R.S.S.A., 1891, p. 130) I formed a new genus, *Adelaidea*, for a South Australian *Dermestid* widely separated from *Trogoderma* generically but agreeing so well as a species with the description of *T. rigua* that I expressed a doubt as to whether it might not be possible that it was the species on which Erickson's description was founded. The study of these King Island specimens is conclusive against that conjecture.

## LAMELLICORNES.

### COPRIDES.

#### ONTHOPHAGUS.

*O. ocelliger*, Har. I have received from Mr. French several specimens (both sexes) taken in the far north of Western Australia which I refer to this species. They agree well with the description, but two of them depart from it in having their elytra more or less spotted with red. They are extremely close to *O. asper*, Macl., but differ from it in being a trifle smaller; with the pronotum somewhat more nitid, not quite so closely punctulate, devoid of the small tubercle that occupies the middle of the front margin in (at least one sex of) *asper*, and having its base distinctly margined in the middle. The sexes do not differ much *inter se*; the front tibiæ of that which I take to be the male are a little longer and more slender, and the pygidium of the same a little more convex than in the other sex. The presence of a distinct fine line margining the middle part of the base of the pronotum places this species (in my tabulation of *Onthophagus*, Tr. Roy. Soc., S.A., 1903, pp. 267, etc.) in Group V., where it falls beside *O. henleyensis*, Blackb., from which, however, its pilosity, closer puncturation of pronotum, unequal elytral interstices, and very much smaller size, separate it widely.

*O. carmodensis*, sp. nov. Sat latus: supra glaber; subtus pilosus; modice nitidus; niger, antennarum clava flava, tarsis rufescentibus; clypeo antice fortiter emarginato; capite æquali, antice ruguloso, postice fere lævi; oculis sat latis lævibus; prothorace quam longiori ut 19 ad 11

latiori, supra obsolete (vix perspicue) punctulato, supra æquali (foveis sublateralibus exceptis), lateribus ante medium haud (pone medium fortiter) sinuatis, angulis anticis fere rectis subproductis postis obtusis bene definitis, basi tota subfortiter elevato-marginata; elytris nitide minus subtiliter crenulato-striatis, interstitiis leviter convexis coriaceis vix manifeste punctulatis; pygidio sparsim minus subtiliter (metasterno ad disci latera sat fortiter) punctulato; unguiculis sat magnis ut *O. Kingi*, Har., ad basin abrupte curvatis. Long.,  $4\frac{1}{2}$  l.; lat.  $2\frac{4}{5}$  l.

The presence of a distinct raised edging along the base of the pronotum places this species in Group V. in my tabulation of *Onthophagus* (*loc. cit.*), where it falls beside *O. Helmsi*, Blackb., and *O. Koebelei*, Blackb., from both of which it is distinguished by its very much larger size and *inter alia* by the absence of distinct punctures on its pronotum. The adoption of the sculpture of the base of the pronotum as the character on which to found primary divisions of *Onthophagus*, although the most satisfactory that I can find, undoubtedly divides into separate groups some species that seem more suited from their general appearance to be placed near each other, and the present insect furnishes a case in point, as the species to which it bears most resemblance are in Groups IV. and VI., especially *Kingi*, Har., *parvus*, Blanch., *Murchisoni*, Blackb., *submuticus*, Blackb., *inermis*, Macl., and *muticus*, Macl., from all of which, except *Murchisoni*, it is at once separated by the emarginate apex of its clypeus; while from *Murchisoni*, besides the character already mentioned, it differs, *inter alia*, by the structure of its hind claws. I am doubtful of the sex of the type of this insect, but consider it to be probably a female, as its front tibiæ are only moderately slender and the teeth of their external margin are extremely long and stout.

North-Western Australia (from Mr. French); Carmod Bay.

#### SYSTELLOPIDES.

I have recently received two species appertaining to this subfamily, of which one agrees with the diagnosis of the genus *Trichelasmus*, the other with that of *Enamillus*. The distinctness, *inter se*, of those two genera is based upon the number of joints in the antennal flabellum,—a character that seems to me of no value at all from a generic point of view,—and I am convinced that they ought to be regarded as representing only one genus. As, however, I have not seen either of the species for which the names were proposed it would be unwise actually to suppress either name at present and there-

fore I shall provisionally use both Dr. Sharp's names for the species before me. Dr. Sharp says that his *T. pilicollis* and *E. striatus* are excessively like each other; a similar statement may justifiably be made regarding the two species I am about to describe. The question arises whether it may be that *Trichelasmus* is the female of *Enamillus*; but I think it must be answered in the negative, although certainly it seems a suspicious circumstance that each genus should contain two species, not very like each other superficially, but each extremely like one in the other genus. The objection to regarding the difference between these two aggregates as sexual are as follows (at any rate in respect of the two forms before me):—(a) In no species known to me of the Australian *Melolonthides* is there, strictly speaking, a difference between the number of joints in the antennal flabellum of the male and the female; where such a difference has been recorded it has been founded on the fact of the basal joint or joints of the flabellum in the female being so slightly prolonged as to have been (incorrectly) excluded from the flabellum, whereas of the species before me one has basal three and the other only basal two joints devoid of any inner prolongation whatever; (b) in one of the forms before me the antepenultimate joint of the maxillary palpi is considerably longer than the penultimate; while in the other the corresponding joints are of equal length; (c) the striation of the elytra is notably different in the two forms; (d) in the specimen before me which is evidently Sharp's *Trichelasmus* the ventral segments are of the male type (shorter and more crowded together, with the apex of the pygidium slightly inclined towards the ventral segments) but its antennal flabellum is of the female type (if the two were considered to be sexes of one species), whereas in the specimen that is Sharp's *Enamillus* the ventral segments (on the supposition of the two forms being sexes of one species) would point to its being the female and the antennal structure to its being the male; (e) having before me two specimens of the *Trichelasmus* form, I find that in one of the specimens there is a large, circular, deep fovea in the centre of the pygidium which may possibly be accidental, but which on the other hand not improbably indicates that I have both sexes of *Trichelasmus* before me.

#### ENAMILLUS.

*E. Mauricei*, sp. nov. Piceo-niger, pruinosis, antennarum stipite ferrugineo, elytrorum partibus 2 basalibus læte rufis; corpore subtus fronte pronoto scutelloque longe fulvo-pilosis; labro subnitido lævi leviter transverso, quam clypeus vix angustiori; clypeo subnitido crebre subtilius

ruguloso; fronte opaca obsolete rugulosa; palporum maxillarium articulo antepenultimo quam penultimus sat longiori; antennis 9-articulatis, articulo 3° intus angulato, flabello magno 6-articulato arcuato articulis intus confertim breviter pilosis (articulis apicali basalique subtus circum ceteros intortis); prothorace opaco quam longiori duplo latiori, antice leviter angustato, supra obsolete vix crebre punctulato, lateribus sat arcuatis, angulis omnibus rotundatis, basi utrinque sat fortiter sinuata; scutello permagno, ut pronotum punctulato; elytris opacis perspicue nec fortiter 9-striatis, striis punctulatis geminatim ordinatis, interstitiis sparsim obsolete punctulatis sat planis; pygidio nitido sparsim subtilius punctulato; tibiis articis extus fortiter bidentatis, posticis brevibus valde incrassatis; tarsis posticis sat robustis modice elongatis, articulo basali quam 2<sup>us</sup> paullo longiori; coxis posticis quam metasternum sat brevioribus; segmento ventrali apicali postice haud emarginato. Long. 7 l.; lat. 3 $\frac{2}{5}$  l.

The description of *E. striatus*, Shp., is so brief that it is not practicable to specify the distinctions between it and the present insect further than by mentioning that the larger size of *E. Mauricei* and the red colouring of the basal two-thirds of its elytra no doubt sufficiently distinguish it. I have called the front area (of the three areas into which the head is divided) the "labrum," although I am doubtful whether that area is really a true labrum. Dr. Sharp calls it the labrum, while Lacordaire considers it a part of the clypeus. The sculpture of the front tibiæ (which have only a single external tooth above the apical projection) is not usual in the Australian *Melolonthides*. The Systellopides form a most interesting and isolated group of *Lamellicornes*.

Central Australia (Musgrave Ranges). Taken by the explorer, R. P. Maurice. Type in S.A. Museum.

#### TRICHELASMUS.

*T. basalis*, sp. nov. Piceo-niger, pruinosis, antennarum stipite labro palpis elytrorum macula magna basali pedibusque læte rufis; corpore subtus fronte pronoto scutelloque longe fulvo-pilosis; labro nitido, fere lævi, quam longiori plus quam duplo latiori, quam clypeus haud angustiori; clypeo sat nitido crebre minus subtiliter ruguloso; fronte opaciori quam clypeus vix aliter rugulosa; palporum maxillarium articulis penultimo antepenultimoque longitudine sat æqualibus; antennis 9-articulatis, articulo 3° intus haud angulato, flabello sat magno 5-articulato arcuato articulis intus confertim breviter pilo-

sis (articulis apicali basaliq̄ue subtus circum ceteros intortis); prothorace opaco quam longiori fere duplo latiori, antice sat fortiter angustato, supra acervatim leviter punctulato, lateribus sat arcuatis, angulis anticis bene definitis sat rectis posticis subrotundatis, basi utrinque sat fortiter sinuata; scutello magno opaco leviter vix crebre punctulato; elytris opacis 4-striatis, parte dimidia laterali haud perspicue striata, striis nonnihil geminatim ordinatis, interstitiis planis confertim subtilissime subasperis; pygidio pernitido sparsim leviter punctulato; tibiis anticis extus fortiter bidentatis posticis brevibus sat fortiter incrassatis; tarsis posticis modicis, articulo basali quam 2<sup>us</sup> sat longiori; coxis posticis quam metasternum sat brevioribus; segmento ventrali apicali postice haud emarginato. Long., 6 l.; lat., 3½ l.

The description of *T. pilicollis*, Shp., is brief and does not mention many characters available for comparison with the present insect. The large red basal spot (occupying about a third part of the area of the elytron) on each of the elytra of *T. basalis* is, however, no doubt a distinctive character; and Sharp's statement that the labrum of his species is "very large" clearly indicates specific difference. I am disposed to think that I have both sexes of this species before me, not only because the large round forea on the pygidium of one of them seems not unlikely to be sexual, but also because the hind tarsi, in the specimen having the foveate pygidium, are distinctly (though not very much) more robust than in the other specimen.

Western Australia: Esperance Bay (Mr. French).

SAROTHROMERUS (*gen. nov., Systellopidarum*).

Mentum leviter transversum antice rotundatum; palpi labiales breves, ad basin haud contigui, articulo apicali subconico; palpi maxillares robusti modice elongati, articulo 2° quam 3<sup>us</sup> sat longiori quam 4<sup>us</sup> sat breviori; labrum (? clypei pars antica) quam clypeus (? quam clypei pars postica) fere duplo angustius; oculi reniformes; sutura inter frontem clypeumque haud carinata; antennæ 9-articulati, flabello 6-articulato, flabelli laminis (? maris solum) gracilibus intus setis robustis plurimis elongatis (his subtiliter pilosis) fimbriatis; prothorax fortiter transversus; scutellum permagnum transversum; elytra geminato-striata; corpus supra glabrum, subtus pilosum; coxæ posticæ quam metasternum haud breviora. Type.—*Enamillus Sharpi*, Blackb.

When I attributed this insect to *Enamillus* (Tr.R.S.S.A., 1905, p. 278) I had not seen a typical member of that genus,

and therefore mentioned the probability that a new generic name might be required eventually. Having now examined a genuine *Enamillus* I find that my forecast was correct, as will appear from the above diagnosis. The antennæ of this insect (perhaps of the male only) are truly remarkable, and might fitly be characterized as an exaggeration of the antennæ of *Diphyllocera*. Each lamina of the flabellum is fringed with a row of robust elongate filaments or setæ, and each of these filaments is itself clothed with fine erect pilosity. The first lamina is so shaped as to somewhat enfold some of the following laminae, which was my chief reason for placing the species in *Enamillus* provisionally; but having now examined a true *Enamillus* I am able to say that the enfolding in the present genus is much slighter than in *Enamillus*.

#### SERICIDES.

##### *ATERMONOCHEILA* (*gen. nov., Sericidarum*).

Mentum sat transversum, antice emarginatum; palpi labiales modici, articulo apicali elongato gracili subfiliformi; palpi maxillares sat elongatis sat gracilibus, articulo apicali subcylindrico; labrum haud manifestum; oculi magni minus nitidi subtilissime granulati, antice a cantho profunde incisi; antennæ (speciei typicæ) 9-articulatæ, flabello 3-articulato (laminis maris quam articuli ceteri conjuncti vix brevioribus, pilis brevibus subtilibus erectis vestitis); clypeus antice truncatus; prothorax transversus; elytrorum interstitia alterna angusta lævia, alterna lata haud lævia; pedes graciles; tibiæ anticæ (speciei typicæ) extus bidentatæ, dente tertio supra medium vix manifesto; corpus totum setis brevibus crassis adpressis vestitum; coxæ posticæ perbreves, quam metasternum fere triplo breviores.

This genus must be placed near *Epholcis*, from which it differs by, *inter alia*, its flat transverse mentum, the structure of its labial palpi, its much more elongate legs (with claws elongate, slender, and devoid of quill-like appendages), and its elytra geminate-substriate, after the manner of *Scitala*. A hind tibia with its tarsus is considerably longer than the elytra. It should be added that the term "geminate-substriate" requires qualification in respect of the elytra of the typical species of this genus. The subsutural stria is very distinct, but the alternate interstices on the remaining part of the elytra, while narrow and devoid of sculpture (as in *Scitala*), are not limited by defined striæ. If additional species of this genus are discovered, it is probable that the elytral interstices will be found to be alternately wide with sculpture and narrow without sculpture. But the character of the striation in other respects is probably not generic.

*A. longipes*, sp. nov., Mas. Ovata; sat nitida; tota setis brevissimis adpressis sat æqualiter minus crebre vestita; opaca; rufo-ferruginea, pedibus rubris; clypeo antice sat reflexo; prothorace quam longiori ut 9 ad  $5\frac{1}{2}$  latiori, antice minus angustato, lateribus modice arcuatis, angulis anticis vix acutis parum productis posticis subrotundatis, basi haud marginata utrinque sat fortiter sinuata; scutello sat elongato triangulari; elytris stria subsuturali impressis, interstitiis 4 lævibus ornatis; tarsorum posteriorum articulo basali quam 2<sup>us</sup> sat breviori; segmento ventrali apicali perbrevis, postice haud emarginato. Long., 5 l.; lat.  $2\frac{3}{5}$  l.

This being the typical species of the genus, it is unnecessary to repeat, in describing it, the characters already cited in the generic diagnosis. With the exception of the subsutural stria of the elytra the whole dorsal and under-surface of the body is devoid of sculpture other than the remarkably evenly-distributed punctures, in which the setæ are inserted, and which are only visible when the setæ have been removed. The setæ are extremely short, closely adpressed, and somewhat coarse.

Western Australia. Given to me by Mr. Jung.

#### SERICOIDES.

##### CAULOBIUS.

*C. (Ocnodus) ferrugineus*, Blackb. (Tr.R.S.S.A., vol. xvi., p. 28). This species, attributed by me with an expression of much doubt to *Ocnodus*, must be transferred to *Caulobius*. In my tabulation of distinctive characters of the species of *Caulobius* (*loc. cit.*, 1906, p. 288), *C. ferrugineus* falls beside *C. punctulatus*, Blackb., from which it may be distinguished as follows:—

D. Elytral interstices quite strongly convex ... .. *punctulatus*, Blackb.  
 DD. Elytral interstices not convex ... .. *ferrugineus*, Blackb.

As the type of this species is unique and belongs to the S.A. Museum, I have not been able to subject it to the manipulation necessary to arrive at certainty as to the number of joints in its antennæ; I am, however, almost sure that they are nine in number.

#### HAPLONYCHA.

*H. Griffithi*, sp. nov., Fem. Sat elongata; ovata; subnitida; rufa, elytris antennisque testaceo-brunneis; leviter iridescens; corpore subtus pedibusque longe pilosis; palporum maxillarium articulo 3<sup>o</sup> quam 2<sup>us</sup> et quam 4<sup>us</sup> sat breviori; antennis 9-articulatis, articulo 4<sup>o</sup> quam 3<sup>us</sup>

sat breviori; flabello 5-laminato, lamella basali perbrevis ceteris quam articuli 2-5 conjuncti vix brevioribus; clypeo modice elongato, peralte reflexo, subtiliter sat sparsim punctulato; fronte subtiliter obsolete punctulata; prothorace quam longiori duplo latiori, antice modice angustato, supra sparsim subtiliter sat obsolete punctulato, lateribus sat fortiter rotundatis anguste marginatis, basi utrinque parum sinuata, angulis posticis obtusis bene determinatis; elytris leviter geminato-striatis, sparsim sat subtiliter punctulatis; pygidio sparsim obsolete punctulato, longitudinaliter subcarinato: tarsorum posteriorum articulo basali 2° longitudine sat æquali. Long., 9 l.; lat., 4½ l.

This species is readily distinguishable from the other described species of the genus. Its group characters place it in Group V., in which only two iridescent species have been previously described (*gigantea*, Burm., and *lucifera*, Blackb.), from both of which it differs by, *inter alia*, its very much smaller size, the female antennæ terminating in four equal (or nearly so) lamellæ, the forehead scarcely visibly punctulate, etc. It does not fit into my tabulation of *Haplonycha* (Tr.R.S.S.A., 1906, pp. 297, etc.), owing to my having used the word "large" in characterizing the aggregate "A" on p. 301. In order to place it, the following must be substituted for the first nine lines under Group V.:—

- A. Iridescent species. [Joint 3 of maxillary palpi conspicuously shorter than joint 2].
- B. Frons conspicuously punctulate.
- C. Pygidium but little nitid, closely sculptured, especially near base      *gigantea*, Burm.(?)
- CC. Pygidium brilliantly nitid, its puncturation extremely sparse      *lucifera*, Blackb.
- BB. Frons scarcely punctulate      ...      Griffithi, Blackb.
- AA. Non-iridescent species.

Northern Territory; Port Darwin. Given to me by Mr. H. Griffith.

#### PETINOPUS.

I have no further information to be recorded regarding this genus, and have not seen any more examples than those mentioned when I characterized the genus in 1898. The unique species is probably a very rare one.

#### GLOSSOCHEILIFER.

Since I described *G. labialis* (Tr.R.S.S.A., 1898, p. 37) I have obtained a male example of a second species of this curious genus, of which the following is a description:—

*G. addendus*, sp. nov., Mas. Elongato-ovatus; subnitidus; supra fere glaber, corpore subtus pedibusque pilosis; rufo-testaceus, elytris dilutioribus; capite confertim subtilius, pronoto sat crebre sat æqualiter subtiliter, elytris subfortiter sat crebre, pygidio sparsim sat obsolete punctulatis; clypeo antice rotundato minus fortiter reflexo; prothorace postice marginato, antice angustato, sat transverso, lateribus fortiter arcuatis, angulis anticis parum productis subobtusis posticis rotundatis, basi utrinque subsinuata; elytris in disco sat (latera versus vix) manifeste striatis, striis geminatis: tarsorum posteriorum articulo basali quam 2<sup>us</sup> sat breviori. Long.,  $7\frac{1}{2}$  l.; lat.,  $3\frac{2}{5}$  l.

Australia; exact locality doubtful, probably Western Australia.

Apart from colour, this species differs from *G. labialis*, Blackb., by, *inter alia*, the closer discal puncturation of its pronotum, the blunter and less prominent front angles of its prothorax, and the notably stronger and closer puncturation of its elytra. The joints of the flabellum of its antennæ are not quite so long as the preceding joints of the antennæ together. The hind coxæ are very evidently, but not very much, shorter than the metasternum; in *G. labialis* they are a little shorter than in this species.

#### SCITALA.

The positive identification of species described by the older authors in this genus is practically impossible without examination of types which are scattered through European collections, and some of which have probably perished. There is no other alternative than either to leave the genus as constituting an insoluble enigma or to deal with it, using one's best judgment in making probable identifications, and produce a monograph of its species, which is sure to contain many errors, but which will at any rate, I hope, prove to be intelligible and, therefore, capable of correction. At present there is comparatively little which can be affirmed either to be correct or to be incorrect, as a large number of the descriptions of species are incapable of identification with any insect in particular, and therefore I adopt the latter of the expedients mentioned above. If I can, with the aid of some knowledge of localities in which species occur, arrive at the probability of the insects on which the descriptions were founded and claim some at least of the old names for species which my notes may render identifiable, it will be possible for workers who may have access to such of the widely-scattered types as still remain to confirm or correct my identifications.

It is extremely difficult to compile a satisfactory list of the names that can correctly be said to have been applied to insects that have been or at the time of description might have been with fairly good reason regarded as members of this genus. I have already discussed at some length (P.L.S.N.S.W., 1890, pp. 539, etc., and Tr.R.S.S.A., 1898, pp. 37, etc.) the highly intricate question of the generic validity of the names *Scitala* and *Sericesthis*, and I will not now repeat the discussion but merely mention the conclusion I arrived at and to which I still adhere, viz., that they are both valid names, *geminata*, Boisd. (which is the type of *Sericesthis*, and is generally accepted as a later name for *Melolontha pruinos*, Dalm.) being generically distinct from the species for which Erickson founded the genus *Scitala*. Other species to which other generic names (*Melolontha*, *Cotidia*, and *Anodontonyx*) have been applied by their authors have been by some authors attributed to *Scitala*. As indicated below, *Cotidia* is probably synonymic with *Heteronyx*. *Anodontonyx* may rightly be treated as a valid genus. Of course none of the species in question are true members of the genus *Melolontha*. The name *Scitala*, then, must, in my judgment, be restricted (among the Australian *Sericoides*) to species possessing the following characters: Prosternal sutures normal, claws simple, membranous wings fully developed, femora not exceptionally elongate and slender, elytra normally elongate, eyes large convex and scarcely granulate, front tibiæ and antennal flabellum not of extraordinary structure, tarsi not bearing tufts of long soft hairs, labrum distinct from the vertical front face of the clypeus,<sup>(1)</sup> front of clypeus neither emarginate nor with acute lateral angles, base of pronotum completely margined, elytra geminate-striate, hind tibiæ fairly elongate and not very strongly dilated at apex, sterna more or less subglabrous (never closely pilose), flabellum of antennæ not in both sexes very (and subequally) short. The genus *Scitala* is in the extraordinary position of having been founded by Erickson for two species neither of which agrees in all respects with the generic diagnosis. I see no escape from this conclusion, since it appears impossible to doubt that two common Tasmanian insects which agree perfectly as species with the well-expressed descriptions of their author are really the two for which he proposed the name *Scitala*. Moreover, I had the opportunity some years ago of examining specimens which Professor Kolbe of Berlin lent me for inspection as the types of Erickson's species, and I found them to be identical with the species to which I had attributed the names. Erickson says that the

(1) *Scitala pallidula*, Macl., presents the only exception known to me in respect of this character.

antennæ of *Scitala* are eight-jointed and that the flabellum of the male antennæ is more than twice as long as that of the female antennæ. As a fact, the antennæ of *S. sericans* differ from the above description in being nine-jointed, and those of *S. languida* in the flabellum being subequal in the two sexes. I can only suppose that Erickson had of *languida* only the female before him and counted the joints in its antennæ and assumed that the unseen male would differ from its female as male *sericans* differs from its female; and that he then assumed (without counting) that the antennæ of *sericans* had the same number of antennal joints as the species which he regarded as congeneric with it. As *sericans* stands before *languida* in Erickson's memoir—and as the variation of its antennæ from the generic diagnosis is only in respect of a character (*i.e.*, number of joints) which is certainly not generic in the Australian *Sericoides* while the variation of *languida* is in respect of a much more important character (*i.e.*, the sexual structure)—the right course appears to be to amend Erickson's diagnosis by taking out from it "8-articulatæ," and then regard *sericans* as the typical species. Burmeister, indeed, has already altered the generic diagnosis to make it include species with nine-jointed antennæ but without noticing that the antennæ of *sericans* are nine-jointed.

Erickson's generic diagnosis, moreover, is incorrect in its statement that the basal joint of the hind tarsi is shorter than the second joint. This is true of *languida* (more decidedly in the female than in the male), but in the male of *sericans* the basal joint is notably longer than the second. Burmeister reproduces this error in respect of the species (evidently having seen only females), but does not treat it as a generic character. Neither of those authors seems to have observed that the length of the basal joint of the hind tarsi varies sexually. Burmeister indicates that he has not seen the male of *languida*, but nevertheless asserts (probably quoting from Erickson) that the flabellum of its antennæ is very elongate. As a fact it is (as stated above) very short, and the species must be transferred to the genus *Anodontonyx*. There is no definite assertion on the part of either author that he has seen the male of *languida*.

The number of names that have been applied to species under the name *Scitala* or under names that may reasonably be (or at any rate have been) considered equivalent to *Scitala* as that name has been at some time or other understood, is twenty-nine. As I consider that only nine of those names can stand as representing valid species (capable of identification) of the genus *Scitala* in the strict sense, it seems necessary to furnish notes on the names that I reject, as follows:—

*Scitala aenescens*, Burm. There is nothing in the description of this species that indicates distinction from a darkly-coloured specimen of *S. sericans*, Er., which varies extremely in colouring.

*Scitala armaticeps*, Macl. I have examined the type of this insect in the Australian museum and find that it is a *Neso*, and differs from all the other described species of that genus by, *inter alia*, the remarkable elevated transverse carina that crosses its clypeus a little in front of the clypeal suture.

*Cotidia australis*, Boisd. This name stands in Masters' Catalogue as a synonym of *Sericesthis (Scitala) pruinosa*, Dalm., but that reference is certainly incorrect, as Boisduval says, "subtus pilis fulvis hirsuta." There is in the Macleay Museum a specimen ticketed in Mr. W. S. Macleay's writing, "*Cotidia australis*, Gory"—the name followed by an obscure mark (in very much-faded ink) which I think has been a note of interrogation. Unless the actual type can be referred to, this Sydney specimen is probably the most authentic in existence, and it seems to agree fairly with Boisduval's pseudo-description. It is a *Heteronyx*, and therefore need not be further discussed here.

*Melolontha chlorotica*, Gyll. A label in the handwriting of Mr. W. S. Macleay, bearing the words "*Ectoma chlorotica*, Sch.," is attached to a specimen in the Macleay Museum. Probably this specimen is a co-type, if not the actual type. As it is a *Heteronyx* I need not discuss it further here.

*Sericesthis geminata*, Boisd. Described in six words. Burmeister makes it identical with *Sericesthis pruinosa*, Dalm., which is not a true *Scitala*. No guess, even at its genus, can be made from the description.

*Melolontha ciliata*, Boisd. Referred by Burmeister and Blanchard to *Haplonycha*, and reported by me under heading of that genus as incapable of identification. The Macleay Museum possesses a specimen ticketed in Mr. W. S. Macleay's writing "*Sericesthis ciliata*, McLeay." It is almost certainly a co-type. Being a *Heteronyx* its further discussion will stand over to the next paper of this series.

*Sericesthis glabra*, Blanch. Probably *Scitala* or *Anodontonyx*, but the description does not mention the structure of the antennæ, and such as it is would apply to several species of either genus.

*Scitala impressa*, Brenske. This is probably a later name for *Neso (Scitala) armaticeps*, Macl. The type of *armaticeps* agrees well with Brenske's description.

*Scitala languida*, Er. = *Anodontonyx*.

*Sericesthis micans*, Blackb. = *Anodontonyx*.

*Sericesthis nigrolineata*, Boisd. = *Anodontonyx*.

*Scitala pallidula*, Macl. I have examined the type specimen in the Macleay Museum. Unfortunately there is no means of determining its sex. It seems to be a typical *Scitala* (the unusual shape of the clypeus being disregarded) if it be a female; but if it is a male the short laminae (three in number) of the antennal flabellum, together with the peculiar clypeus may justify Macleay's suggestion that it "should perhaps form a new genus." Its place in my tabulation (*infra*) indicates its principal characters. The exceptional shape of its clypeus makes it stand in *Byrrhomorpha* in my tabulation of *Sericoid* genera (Tr.R.S.S.A., 1898, pp. 32, etc.). *Vide infra*, under heading *Byrrhomorpha*.

*Sericesthis parvipes*, Blackb. = *Anodontonyx*.

*Sericesthis planiceps*, Blackb. = *Anodontonyx*.

*Sericesthis pruinosa*, Dalm. The type of *Sericesthis*, as distinguished from *Scitala*.

*Sericesthis pruinosa*, Blanch. *Nom. praecoc.* = *Scitala rugosula*, Har.

*Scitala pruinoseilla*, Brenske = *Sericesthis*.

*Sericesthis pullata*, Boisd. Described in seven words. Quite unrecognizable. "*Elytris subtomentosis*" seems inconsistent with its being a true *Scitala*.

*Scitala rugosula*, Har. = *Anodontonyx*.

*Scitala suturalis*, Macl. = *Sericesthis*, as distinct from *Scitala*. I have examined the type.

*Sericesthis cervina*, Boisd. In the Macleay Museum is a specimen bearing a label on which Mr. W. S. Macleay wrote "*Sericesthis cervina*, Dej. N.S.W." As it is probable that the specimen is a co-type, and as it agrees with Boisduval's pseudo-description, there can be little doubt that it is the genuine thing. In former memoirs I have expressed the opinion that *S. cervina*, Boisd. could not be determined without inspection of the type. As the specimen in the Macleay Museum is a *Heteronyx* I need not discuss it further here, but shall hope to do so in the next of this series of papers.

To the nine species which I regard as at present constituting the genus *Scitala* I have now to add ten new species. The following is a tabular statement of the characters by which the species of *Scitala* can be distinguished *inter se*.

A. Antennae consisting of only 8 joints.

B. Hind angles of pronotum conspicuously explanate and upturned ... *rugosiceps*, Blanch.(?)

BB. Hind angles of pronotum not as "B."

C. Forehead non-rugulose and not nearly confluent punctured.

D. Pronotum extremely convex longitudinally (*i.e.*, viewed from the side) ... *convexicollis*, Blackb.

- DD. Pronotum normal.
- E. Dorsal surface non-iridescent      parallela, *Blackb.*
- EE. Dorsal surface iridescent.
- F. Pygidium less finely punctulate (almost as *S. sericans*, Er.) ... .. Ino, *Blackb.*
- FF. Pygidium notably more finely punctulate ... .. nemoralis, *Blackb.*
- CC. Forehead confluently (at any rate on sides), and more or less rugulose, punctulate.
- D. Pronotum not or but little rugulose.
- E. Raised edging of pronotum considerably thickened and more elevated round hind angles ... .. dispar, *Blackb.*
- EE. Raised edging of pronotum not thickened nor more elevated round hind angles ... .. puncticollis, *Blackb.*
- DD. Pronotum closely and very strongly scabrous ... .. erosa, *Blackb.*
- AA. Antennæ consisting of 9 joints.
- B. Clypeus and forehead divided from each other by a deep furrow.
- C. Lateral edging of pronotum notably more raised in front than in middle, with lateral gutter much dilated in front.
- D. Raised edging of base of pronotum notably more elevated at the ends than in the middle ... .. Nemesis, *Blackb.*
- DD. Raised edging of base of pronotum continuously fine.
- E. Sides of prothorax normally arched (almost as in *Sericesthis pruinosa*, Dalm.) ... .. rorida, *Burm. (?)*
- EE. Sides of prothorax much less strongly arched.
- F. Pygidium non-carinate; size large (more than 7 l.) hospes, *Blackb.*
- FF. Pygidium longitudinally carinate (feebly in male, strongly in female); size small (about 5 l.) ... .. calescens, *Blackb.*
- CC. Lateral edging of pronotum even, or all but even.
- D. Raised edging of pronotum obsolete in middle of base.
- E. Elytral puncturation sub-rugulose; colour black or piceous above, dark piceous beneath.
- F. Pygidium closely but not confluently punctulate ... .. ambigua, *Blackb.*
- FF. Pygidium confluently rugulose ... .. coxalis, *Blackb.*

- EE. Elytral puncturation non-rugulose; colour chestnut, with golden gloss ... .. aureo-rufa, *Blanch.*(?)
- DD. Raised edging of pronotum continuous across base.
- E. Front of clypeus gently emarginate ... .. pallidula, *Macl.*
- EE. Front of clypeus widely rounded.
- F. Joints of flabellum of male antennæ very much longer than joints 1-6 of antennæ together; head bicolorous ... .. sericans, *Er.*
- FF. Joints of flabellum of male antennæ scarcely longer than joints 1-6 of antennæ together; head unicolorous ... .. subsericans, *Blackb.*
- BB. Head continuously convex; clypeus separated from forehead only by a suture (at any rate in male) ... .. juvenis, *Blackb.*

It seems well to preface my descriptions of new species with a note on the vestiture of the under surface. In the case of some species I have described the sterna as "sparsim pilosa," and have omitted mention of pilosity in describing others, calling them "subglabra." I do not attach much importance to this character. The vestiture of the sterna is easily rubbed off, and I am disposed to think that there is more or less pilosity (never close and conspicuous as it is in *Haplonycha*) on the sterna of fresh specimens of all *Scitala*. In dealing with single specimens, the describer, however, can record only pilosity which is present, and of course specimens must in some instances be described which are not in perfectly fresh condition.

*S. rugosiceps*, *Blanch.* My identification of this species is somewhat of the nature of a guess, as there is nothing in the description inconsistent with its being any one of rather numerous species. The probability, however, seems to be slightly in favour of *rugosiceps* having eight-jointed antennæ (though without any definite statement to that effect). If that be the case, the insect to which I apply the name is the only one known to me that size locality and colour in combination would indicate as likely to be *rugosiceps*. I suspect that this insect is also the original of *Burmeister's* description of *S. sericans*, *Er.* (though it is certainly not that species—*inter alia* because of its strongly punctulate scutellum), chiefly on account of its being, among the possible species known to me, that which agrees best with *Burmeister's* statement that the tarsi of *S. sericans* are devoid of setæ, the setæ of its tarsi being very inconspicuous and on the hind tarsi almost wanting. (For the identification of the true *S. sericans*, *Er.*, see my remarks above).

*S. conveicollis*, sp. nov., Mas (?). Ovata; sat convexa; nitida; subglabra; dilute brunnea, leviter aureo-micans, prothorace pedibusque rufescentibus; antennis 8-articulatis, flabello quam articuli 2-5 conjuncti vix longiori; palporum maxillarium articulo apicali ovali; clypeo confertim punctulato, antice sat fortiter reflexo-subtruncato; fronte sat plana sparsius punctulata transversim impressa; prothorace sat fortiter (fere ut 9 ad  $5\frac{1}{2}$ ) transverso, fortiter gibbo, antice minus angustato, supra sparsius minus subtiliter punctulato, angulis anticis sat acutis posticis rotundato-obtusis haud explanatis, basi late rotundata; scutello punctulato; elytris leviter geminato-striatis, fere ut pronotum sed paullo magis crebre punctulatis; pygidio subplano sparsius subtiliter punctulato; segmentis ventralibus (lateribus exceptis) vix perspicue punctulatis, ultimo medio breviter lobato-producto; tibiis anticis extus 3-dentatis; tarsis posticis (exempli typici) subtus sparsissime setosis, articulo basali quam 2<sup>us</sup> sat breviori; coxis posticis quam metasternum quinta hujus parte brevioribus. Long. 5 l.: lat.  $2\frac{3}{8}$  l.

Its strongly gibbous pronotum distinguishes this species readily from all others (known to me) to which it bears much superficial resemblance. From its ventral characters I think it must be a male, but the structure of its antennæ and hind tarsi is more suggestive of a female. The sexual characters and small size cause it to form (together with *S. nemoralis*, Blackb. and probably *Ino*, Blackb.) a distinct group in *Scitala* which may possibly be eventually regarded as another genus.

N. S. Wales. I have no record of the exact locality in which I captured it.

*S. nemoralis*, sp. nov. Mas. (?). Subelongata, leviter ovata; sat convexa; subnitida; subglabra; testaceo-brunnea, leviter iridescens, capite prothorace sternis pedibusque magis rufescentibus; antennis 8-articulatis, flabello quam articuli 2-5 conjuncti subbreviori; palporum maxillarium articulo apicali elongato-subcylindrico; clypeo confertim punctulato, antice vix subtruncato, modice reflexo; fronte sparsius subtilius punctulata, sat convexa; prothorace sat fortiter (ut 9 ad 5) transverso, antice minus angustato, supra subtilius crebrius punctulato, angulis anticis sat acutis posticis rotundato-obtusis haud explanatis, basi late leviter rotundata; scutello punctulato; elytris sat fortiter geminato-striatis, quam pronotum paullo magis crebre magis fortiter punctulatis; pygidio sat convexo, crebre sat subtiliter punctulato, antice obtuse longitudi-

naliter carinato; segmentis ventralibus sat obsolete punctulatis, ultimo medio breviter lobato-producto; tibiis anticis extus 3-dentatis; tarsis posticis (exempli typici) subtus minus sparsim setosis, articulo basali quam 2<sup>us</sup> sat breviori; coxis posticis quam metasternum quinta hujus parte brevioribus. Long., 5 l.; lat., 2½ l.

Near *S. convexicollis*, Blackb., and no doubt the same sex as the type of that species, since the apical projection of the last ventral segment is almost sure to be sexual; at the same time the much greater convexity of the pygidium in this species is suggestive of sexual difference. This species differs from *S. convexicollis* in many respects besides that of its pronotum being of normal convexity; *inter alia*, the apical joint of its maxillary palpi is more slender and elongate, the puncturation of all parts of its dorsal surface except the pygidium is much finer; that of its pronotum is evidently—and of its elytra considerably—closer; its clypeus is more rounded in front; the basal part of its pygidium is carinate: its surface is very evidently iridescent, and its tarsi are evidently more setose beneath.

New South Wales: I have unfortunately no record of the exact locality. This and the preceding species are both, I believe, from localities at no great distance from Narrabri, or at any rate in that direction, where I collected some *Scitalæ*.

*S. Ino*, sp. nov. Fem. Ovata; convexa; subnitida; subglabra; rufo-brunnea, iridescens; antennis 8-articulatis, flabello quam articuli 2-5 conjuncti vix longiori; palpis (exempli typici) carentibus; clypeo crebre punctulato, antice rotundato modice reflexo; fronte sparsim minus subtiliter punctulata, sat convexa; prothorace sat fortiter (ut 9 ad 5) transverso, antice minus angustato, supra sparsius minus subtiliter punctulato, angulis anticis sat acutis posticis obtusis (vix rotundatim) haud explanatis; basi late vix sinuatim rotundata; scutello punctulato; elytris sat fortiter geminato-striatis, fere ut pronotum punctulatis; pygidio sat fortiter convexo crebrius minus subtiliter punctulato; segmentis ventralibus sat obsolete punctulatis, ultimo late subtruncatim rotundato; tibiis anticis (exempli typici) extus obtuse subobsolete 3-dentatis; tarsis posticis (exempli typici) carentibus; coxis posticis quam metasternum quinta hujus parte brevioribus. Long., 5 l.; lat., 2½ l.

The specimen here described is unfortunately not in good condition, but as it is the only female that I have seen which can be grouped with the preceding two species it seems de-

sirable to place its characters on record. Its sexual differences seem to consist chiefly in the evenly-rounded front margin of the clypeus, its antennal flabellum a little abbreviated, its ventral segments more massive and convex, and the hind margin of the apical ventral segment not produced in the middle. The obsolete sinuation of the external margin of the front tibiæ is probably due to some accidental cause. As a species it differs from *convexicollis* by its non-gibbose pronotum, its iridescent dorsal surface, much more conspicuously geminate striate elytra, etc., and from *nemoralis* by, *inter alia*, the notably stronger and less close puncturation of its frons pronotum and elytra. This species and the preceding two are very unsatisfactorily intermediate between *Scitala* and *Anodontonyx*, and bear much superficial resemblance to some species of the latter. They differ from both in the nature of their ventral sexual characters, from typical *Scitalæ* by the feebleness of the sexual characters of the antennæ, and from *Anodontonyx* by the flabellum of the antennæ being very evidently longer in both sexes.

Queensland; Brisbane (Mr. F. M. Bailey).

*S. Nemesi*, sp. nov. Ovata, sat elongata; sat convexa; minus nitida; subglabra, sternis femoribusque sparsim pilosis; testaceo-brunnea, nonnihil iridescens; antennis 9-articulatis; clypeo confertim rugulosius punctulato, antice rotundato, sat fortiter reflexo; fronte sat convexa, sat crebre minus subtiliter punctulata; prothorace quam longiori ut 7 ad 4 latiori, antice minus fortiter angustato, supra minus crebre minus subtiliter punctulato, lateribus sat arcuatis, margine laterali antice quam in parte mediana multo magis elevata, angulis anticis acutis posticis haud explanatis rotundato-obtusis, basi utrinque sat fortiter sinuata, margine basali angulos versus quam in parte mediana sat multo magis elevato; scutello vix punctulato; elytris sat fortiter geminato-striatis, sat fortiter sat crebre sat rugulose punctulatis; pygidio sat convexo, minus crebre minus subtiliter punctulato; segmentis ventralibus obsoletius punctulatis; tibiis anticis extus 3-dentatis; tarsis posticis subtus seriatim sat crebre setulosis, articulo basali quam 2<sup>us</sup> paulo longiori.

Maris antennarum flabello quam articuli 1-6 conjuncti paullo longiori, feminae articulis 2-6 conjunctis sat æquali; segmento apicali ventrali postice maris late elevato et emarginato; feminae truncato minus fortiter elevato. Long. 7-8 l.; lat.  $3\frac{1}{2}$ - $3\frac{2}{3}$  l.

A typical *Scitala*; distinct from all others known to me with nine-jointed antennæ by the raised lateral edging of its

protonotum being on the sides much more elevated in front than in the middle and on the base very evidently more elevated at the ends than in the middle. I have a female example of *Scitala* taken in South Australia which may represent a distinct species, but does not seem to differ from the female described above, except in the considerably closer puncturation of its pygidium.

South Australia; Fowler's Bay. Also from Western Australia.

*S. rorida*, Burm. This is one of the most difficult of identification among the *Scitala*. The description (colour and size being disregarded) will fit almost any member of the genus having 9-jointed antennæ. And, unfortunately, there is no indication—beyond the mention of Australia—of the locality in which this species occurs, unless a guess can be made from the mention of Mr. Melly as the donor of the type. Glancing through Burmeister's descriptions of Australian species, it is noticeable that most of those to which Mr. Melly's name is attached relate to insects that are found in New South Wales, and therefore the probabilities are in favour of the type of *rorida* having come from that State. I therefore select among the *Scitala* known to me from New South Wales that which best agrees in respect of size and colour with Burmeister's description, and apportion the name to a species that I met with in the Blue Mountains. It is a large dark-coloured insect with bright iridescence, its entire dorsal surface being of about the same colouring as the head and pronotum of *Sericesthis pruinosa*, Dalm., and on referring to Burmeister's descriptions of the two species I find that he uses exactly the same expression to characterize the dorsal surface of *rorida* and the head and pronotum of *pruinosa*—"dunkelbraun lebhaft irisirend." The probability, therefore, seems to be in favour of the correctness of my identification. It should be noted, however, that the species appears to be very variable in colour (some specimens otherwise indistinguishable being of a pale iridescent brown tint) and widely distributed, since I have taken in the neighbourhood of Adelaide examples that seem quite identical with those taken near Sydney.

*S. hospes*, sp. nov. Sat late ovata; modice convexa; minus nitida; subglabra, sternis femoribusque sat sparsim pilosis; testaceo-brunnea, nonnihil aureo-micans. leviter iridescens; antennis 9-articulatis; clypeo confluentem ruguloso, antice late rotundato, modice reflexo; fronte sat convexa, antice crebre ruguloso postice gradatim minus crebre nec rugulose punctulata; prothorace quam longiori fere ut 7 ad 4 latiori, antice sat fortiter angustato, supra

minus crebre minus subtiliter subinæqualiter punctulato, lateribus parum arcuatis, margine laterali antice quam in parte mediana multo magis elevata, angulis anticis acutis posticis haud explanatis obtusis haud rotundatis, basi utrinque manifeste sinuata, margine basali æquali; scutello haud punctulato; elytris geminato-striatis (maris exempli typici parum fortiter), crebre sat fortiter minus rugulose punctulatis; pygidio fere ut pronotum punctulato; segmentis ventralibus obsoletius punctulatis; tibiis anticis extus 3-dentatis; tarsis posticis subtus seriatim setulosis, articulis basalibus 2 inter se sat æqualibus.

Maris antennarum flabello quam articuli 1-6 conjuncti paullo longiori, feminae articulis 2-6 conjunctis sat æquali; maris segmento apicali ventrali postice leviter elevato et emarginato, feminae truncato vix elevato; maris quam feminae pygidio multo magis convexo. Long.  $7\frac{1}{2}$ -8 l.; lat.  $3\frac{4}{5}$ - $4\frac{1}{5}$  l.

Closely allied to *S. rorida*, Burm. (?); possibly an Alpine race of that species. It is of more robust build and much less iridescent, with the sides of the prothorax very manifestly less rounded and more sinuate behind the middle (in both species there is more or less tendency to sinuosity, more apparent from some than from other points of view). The geminate-striation of the elytra is feebler, and their puncturation closer than in *rorida* (?). This form, even if not a valid species, is at any rate a very clearly distinguishable race-type. The specimens before me do not vary in colouring.

Victorian Alps; near a place called "The Hospice," 6,000 feet above the sea.

*S. calescens*, sp. nov. Sat elongata, parum ovata; sat convexa; subnitida; subglabra; brunneo-testacea, fronte picea; leviter iridescens; antennis 9-articulatis; clypeo crebre vix rugulose punctulato, antice late leviter subtruncato sat fortiter reflexo; fronte subfortiter vix crebre punctulata, sat convexa; prothorace quam longiori fere ut 7 ad 4 latiori, antice minus angustato, supra sat fortiter vix crebre punctulato, lateribus bisinuatis, margine laterali antice quam in parte mediana sat multo magis elevato, angulis anticis acutis posticis haud vel vix explanatis acute rectis, basi utrinque parum sinuata, margine basali angulos versus quam in parte mediana perspicue magis elevato; scutello vix manifeste (vel potius subtilissime) punctulato; elytris minus fortiter geminato-striatis sat fortiter minus crebre punctulatis; pygidio basin versus minus subtiliter nec crebre punctulato apicem versus crebre subtilius transversim ruguloso, longitudinaliter breviter plus minusve fortiter carinato; tibiis anticis

extus 3-dentatis; tarsi postici subter seriatis setulosis, articulo basali quam 2<sup>us</sup> breviori.

Maris antennarum flabello quam articuli 1-6 conjuncti paullo longiori, feminae articulis 2-6 conjunctis sat aequali; maris quam feminae tarsi manifeste longioribus; maris carina pygidiali parum perspicua in longitudinis medio sita, feminae bene elevata basali; maris segmento ventrali apicali postice minus late emarginato et minus elevato, feminae late subtruncato manifeste elevato. Long., 5-5 $\frac{3}{5}$  l.; lat., 2 $\frac{1}{5}$ -2 $\frac{4}{5}$  l.

The sexual characters in this species are unusually well marked and numerous. The lateral outline of its prothorax resembles that of *S. hospes*, Blackb. Its small size distinguishes it from its near allies. The basal joint of its hind tarsi, notably shorter in both sexes than the second joint, is also very distinctive; also the hind angles of its prothorax (viewed from above), sharply rectangular or even subacute. The hind coxae are evidently, but not much, shorter than the metasternum.

North Queensland (Mr. R. C. L. Perkins).

*S. ambigua*, sp. nov. Ovata; convexa; robusta; minus nitida; subglabra; picea vel rufo-picea, pruinosa vix iridescens; antennis 9-articulatis; clypeo sat nitido, crebre leviter ruguloso, in medio sat gibbo, antice rotundato fortiter reflexo; fronte subtiliter minus crebre punctulata, modice convexa; prothorace quam longiori ut 7 ad 4 latiori, antice sat angustato, supra sat subtiliter sat crebre subobsolete punctulato, lateribus parum arcuatis, margine laterali sat aequaliter elevato sed sulco submarginali antice nonnihil dilatato, angulis anticis acutis posticis leviter obtusis vel obtuse rectis haud explanatis, basi utrinque sinuata, margine basali in medio obsolete; scutello punctulato; elytris minus fortiter geminato-striatis, sat crebre minus profunde nec subtiliter punctulatis; coxis posticis quam metasternum parum brevioribus; pygidio crebre parum rugulose nec subtiliter punctulato sat convexo; tibiis anticis extus 3-dentatis; tarsi postici subter seriatis setulosis, articulo basali quam 2<sup>us</sup> sat longiori.

Maris antennarum flabello articulis 1-6 conjunctis sat aequalibus feminae quam articuli 2-6 conjuncti vix longiori; maris quam feminae tarsi postici paullo longioribus; maris segmento ventrali apicali postice emarginato et elevato, feminae subsinuatum truncato nec elevato. Long. 7-8 $\frac{1}{4}$  l.; lat. 3 $\frac{3}{8}$ -4 l.

This species bears some resemblance to *S. sericans*, Er.,

but *inter alia* is considerably larger, with the basal edging of the pronotum obsolete in the middle of the base, and the antennal flabellum of the male very much shorter and not curved. The present species differs also from *S. anescens*, Burm., which, however, is very likely to be identical with *sericans*, Er.) by the flabellum of the male antennæ not being arched, as well as by its considerably larger size.

New South Wales; Sydney, etc. In my collection; also from Messrs. Sloane and Lea.

*S. coxalis*, sp. nov. Mas. (?). Ovata; convexa; robusta; minus nitida; subglabra, sternis femoribusque sparsim pilosis; supra brunneo-rubra nonnihil velutina pruinosa parum iridescens, subtus fere sanguinea, antennis palpisque pallide testaceis; antennis 9-articulatis, flabello quam articuli 1-6 conjuncti manifeste breviori; capite ut *S. ambigua*, Blackb.; prothorace quam longiori duplo latiori, antice sat angustato, supra sat crebre sat leviter minus subtiliter punctulato, lateribus leviter arcuatis, margine laterali sat æqualiter elevato, angulis anticis sat acutis posticis (superne visis) acute rectis haud explanatis, basi utrinque sinuata, margine basali in medio obsolete; scutello punctulato; elytris minus fortiter geminato-striatis, sat fortiter sat crebre punctulatis; pygidio sat gibbo, confertim subgrosse ruguloso; tibiis anticis extus tridentatis; tarsis posticis subtus seriatim setulosis, articulo basali quam 2<sup>us</sup> sat longiori; coxis posticis quam metasternum haud brevioribus; segmento ventrali apicali postice leviter emarginato leviter elevato. Long. 7 l.; lat. 3 $\frac{2}{3}$  l.

The unique specimen described above is unsatisfactorily close to the preceding (*S. ambigua*), but differs in a manner that will not allow it to be regarded as a mere variety. Its pygidium (strongly, very closely, and almost coarsely rugulose, and also strongly gibbous) is quite distinct from that of either sex of *S. ambigua*; its prothorax, moreover, is very manifestly more strongly transverse, and has sharper hind angles. The velvety appearance of its dorsal surface is very likely to be due to the fresh condition of the specimen when killed. The antero-lateral parts of the metasternum are confluent rugulose (in *ambigua* punctured—by no means confluent). The unique type, in spite of its short antennal flabellum, must be considered a male on account of its gibbous pygidium and quite strongly emarginate apical ventral segment.

New South Wales; probably from Mulwala (Mr. Sloane).

*S. aureorufa*, Blanch. There is very little in the description of this species to indicate any characters that are of specific value; no mention, for instance, of the structure of the

antennæ. At the time Blanchard wrote his description "antennæ consisting of eight joints" stood as a generic character of *Scitala*, and therefore it might be argued that its reference to that genus implied that its antennæ have only eight joints. I know no *Scitala* with eight-jointed antennæ likely (from colouring and habitat) to be this species, but I have before me two males and a female of a *Scitala* with nine-jointed antennæ from New South Wales (probably Blanchard's locality), agreeing in size and colouring with the description, and not departing from the description in respect of the few other characters mentioned. My identification of this insect is probably correct. Its distinctive structural characters are indicated in the preceding tabulation, and I may here add the information that in the male the antennal flabellum is slightly bent and slightly longer than the preceding six joints together, the apical ventral segment is only moderately emarginate and feebly elevated behind, and the pygidium strongly convex; while in the female the antennal flabellum scarcely exceeds in length joints 2-6 together, the apical ventral segment is widely subtruncate behind, and the pygidium is only feebly convex. In both sexes the tarsi are sparingly seriate-setulose beneath and (in the male even more than the female) the basal joint of the hind tarsi is notably longer than the second joint.

*S. sericans*, Er. I have already discussed my identification of this species (*vide supra*), and have indicated some of its distinctive characters in the preceding tabulation. I will now add the following remarks:—I have examined a long series of specimens from Tasmania, Victoria, South Australia, and New South Wales; the species varies considerably in colouring, Erickson's description of it and Burmeister's description of his *S. avescens* (which, as already remarked, may well be a variety of it) representing about the two extremes in this respect; in all the specimens that I have seen the forehead is conspicuously and abruptly of dark colour in contrast with the clypeus (this is noted by Erickson, but not by Burmeister); the elytra are not at all rugulose and (for a *Scitala*) are lightly and sparsely punctulate; the flabellum of the male antennæ is notably arched and very elongate, not surpassed in length by that of any *Scitala* known to me; the apical ventral segment of the male is feebly emarginate and feebly elevated behind (that of the female widely truncate and scarcely elevated); the pygidium is moderately convex, slightly more so in the male than in the female; the tarsi are seriate-setulose beneath; the basal joint of the hind tarsi is evidently or scarcely longer than the second joint; the hind coxæ are quite evidently, but not very much, shorter than the meta-

sternum. The variation in the relative lengths of the basal two joints of the hind tarsi is not only sexual, and possibly points to there being more than one species among the specimens before me, but I can find no other character by which to divide them.

*S. subsericans*, sp. nov., Mas. *S. sericanti*, Er. affinis; magis convexa; capite unicolori rufo; antennarum flabello recto quam articuli 1-6 conjuncti subbreviori; elytris subrugulose magis crebre magis fortiter punctulatis; tarsorum posteriorum articulo basali quam 2<sup>us</sup> sat multo longiori; cetera ut *S. sericans*, Er. Long.  $6\frac{1}{4}$  l.; lat.  $3\frac{1}{5}$  l.

The structure of the apical ventral segment is conclusive in determining the specimen before me to be a male, but the straight and very short flabellum of its antennæ separates it strongly from the species discussed above as *S. sericans*, in which the female flabellum is not much (though quite decidedly) shorter than that of the present insect. The general resemblance between the two is so close that it seems unnecessary to describe this insect at full length; in all respects not specified in the above Latin diagnosis it agrees with particulars given above as characterizing *S. sericans*.

New South Wales (Mr. Sloane; probably from Mulwala).

*S. juvenis*, sp. nov., Mas. Ovata; minus convexa: minus nitida; subglabra, sternis femoribusque sparsim pilosis; nigra, sat læte iridescens, elytris abdomine tibiisque picescentibus, antennis palpis tarsisque rufis; antennis 9-articulatis, articulo 6<sup>o</sup> perminuto, flabello quam articuli 1-6 conjuncti paullo longiori; capite sat æquali, crebre (postice paullo minus crebre) subtilius sat æqualiter punctulato, clypeo antice late rotundato sat reflexo; prothorace quam longiori ut 7 ad 4 latiori, antice modice angustato, supra fere ut clypeus (in medio nonnihil magis grosse) punctulato, sat convexo, lateribus sat rotundatis, margine laterali antice quam in parte mediana magis elevata, angulis anticis parum productis vix acutis posticis (superne visis) rectis haud explanatis, basi utrinque sinuata, margine basali in medio subobsoleto: scutello punctulato: elytris fortiter geminato-striatis, sat fortiter minus crebre punctulatis; pygidio sat convexo, sat crebre sat fortiter punctulato; tibiis anticis extus tridentatis; tarsis posticis (exempli typici) carentibus; coxis posticis quam metasternum multo brevioribus; segmento ventrali apicali postice late emarginato leviter elevato. Long. 4 l.; lat. 2 l.

An extremely isolated species in *Scitula*, but I can find no character on which to found generic distinction, unless it

be the peculiar form of the dorsal surface of the head in which the clypeus and forehead are scarcely distinguishable *inter se*, except by a fine (though well-marked) suture, and that does not appear sufficient. Its superficial resemblance is to *Platydesmus*, but *inter alia* its geminate-striate elytra are inconsistent with a place in that genus. The sixth joint of the antennæ is extremely minute, and without careful examination the antennæ appear to have only eight joints.

Victoria (Mr. Kershaw).

#### ANODONTONYX.

This genus was characterized by Dr. Sharp in 1890 in an American publication, "Insect Life" (vol. ii. p. 302). In the same year I described (P.L.S., N.S.W., pp. 546, etc.), under the generic name *Sericesthis*, three species which seem to be members of Dr. Sharp's genus. I attributed them to *Sericesthis* on the assumption that Lacordaire, Burmeister, etc., were right in regarding the typical species of *Scitala* and *Sericesthis* as congeneric, *Sericesthis* being the earlier name of the two. Subsequent study has led me to the conclusion that the two names are both of generic value, and had I made that discovery at the time I described the species in question I should have attributed them to *Scitala*; I failed to do so only because the distinctness of the two genera had up to that time escaped notice, and I regarded *Scitala* as a mere synonym of *Sericesthis*, as I explained fully at the time (*loc. cit.*). *Anodontonyx* is very close to *Scitala* (as Dr. Sharp remarks), and I am not at all confident that the discovery of new species intermediate in their characters will not eventually be fatal to its claim to be regarded as a good genus; I do not think that I should venture to found a new genus for its species if Dr. Sharp had not done so. I have already (*vide supra*) described as *Scitala Ino* an insect which certainly departs from *Scitala* in the direction of *Anodontonyx*. Only one of the characters attributed to *Anodontonyx* seems to me really to distinguish its species from all the species of *Scitala*—viz., "(antennarum) clava perbrevis," and even this needs amplification by the additional statement that in *Anodontonyx* (so far as at present known) antennal sexual characters are almost non-existent. However, as the genus has been formed, and its known species are certainly distinguishable by the antennal character, I think it should be retained, at any rate provisionally. And here it seems necessary to remark that the two species described by Dr. Sharp as members of *Anodontonyx* differ from each other by a character that seems to me even more important from the generic point of view than the antennal structure, which (I have several times

already expressed the opinion) is of singularly slight value among the Australian *Sericoides*. I refer to the vestiture of the sterna, which in the first species described (*vigilans*, the typical species I presume) are said to be "fere nuda," while in the other species (*Harti*) they are called "parum hirsuta." I have before me specimens in good condition which are either identical with the two species under discussion or extremely close to them (see notes below), and I find that in one of those species the sterna are almost without pilosity (more nearly glabrous than I believe any *Scitala* to be when in fresh condition), and in the other notably more pilose than in any *Scitala* known to me. It is therefore quite possible,—inasmuch as the pilosity in the Australian *Sericoides* certainly has its distinctive types running through whole series of species that are associated by other well-marked generic characters—that whether *Anodontonyx* stand as a good genus or not, another new generic name may eventually be considered desirable for the species Dr. Sharp described as *A. Harti*, and for some others closely allied to it, which are noted in the following pages.

In respect of the already described species attributable to *Anodontonyx*, I think they have been described under eight names (one of which, *A. (Scitala) languida*, Er., seems to be merely a synonym of *A. (Sericesthis) nigrolineata*, Boisd.), viz., Dr. Sharp's two and the five that I have already indicated under the heading of *Scitala* (above). To these I now add nine additional. The following table will show characters by which the species of the genus may be identified. The subsequent pages contain descriptions of the new species, and notes on those previously named. The descriptions of three species (*A. vigilans*, Shp., *Harti*, Shp., and *rugosula*, Har.) do not indicate characters that enable me to place those species in my tabulation.

- A. Antennæ consisting of only eight joints.
- B. Joint 2 of antennæ more or less globular, and considerably stouter than third joint.
- C. Hind corners of pronotum not explanate. Head non-pilose, unless on margin.
- D. Prothorax at its widest not behind middle.
- E. Pronotum moderately closely and not particularly finely punctulate.
- F. Prothorax quite (or all but) twice as wide as long.
- G. Dorsal surface not iridescent.

- II. Intermediate tarsi  
     nearly twice as long  
     as their tibiæ ... planiceps, *Blackb.*  
 HH. Intermediate tarsi  
     very little longer  
     than their tibiæ ... parvipes, *Blackb.*  
 GG. Dorsal surface some-  
     what brilliantly iri-  
     descent ... gravicollis, *Blackb.*  
 FF. Prothorax much less  
     transverse ... tetricus, *Blackb.*  
 EE. Pronotum very finely and  
     sparsely punctulate ... consanguineus, *Blackb.*  
 DD. Prothorax at its widest be-  
     hind middle.  
 E. Hind angles of prothorax  
     from all points of view  
     rounded or very obtuse.  
 F. Lateral parts of pronotum  
     very closely (almost con-  
     fluently) punctulate ... creber, *Blackb.*  
 FF. Lateral parts of pronotum  
     much less closely punctu-  
     late.  
 G. Body entirely atro-cya-  
     neous (strongly irides-  
     cent) ... micans, *Blackb.*  
 GG. Body ferruginous or  
     testaceous.  
 H. Hind angles of pro-  
     thorax quite distinct,  
     though strongly obtuse ... chalcus, *Blackb.*  
 HH. Hind angles of pro-  
     thorax quite rounded  
     off ... indignus, *Blackb.*  
 EE. Hind angles of prothorax  
     rectangular (viewed from  
     above), scarcely blunted ... rectangulus, *Blackb.*  
 CC. Hind corners of prothorax quite  
     strongly explanate. Head pilose ... nigrolineata, *Boisd.*  
 BB. Joint 2 of antennæ quite slender  
     (as the 3rd joint) ... antennalis, *Blackb.*  
 AA. Antennæ consisting of nine joints ... hirticeps, *Blackb.*

*A. Harti*, Shp. This species must be extraordinarily close to my *A. (Sericesthis) planiceps*, which was described almost simultaneously with it. Nevertheless as Dr. Sharp states that the pygidium of *Harti* is "smooth towards the apex," and I find no trace of such a character in any of the numerous specimens before me of *planiceps*, I am obliged to treat them as distinct species. And here I may remark that, in spite of the apparent likelihood of the female differing from the male as indicated by Dr. Sharp, I am by no means satisfied that the specimens which he regarded as females of *Harti* are not really examples of another species. I have specimens of *A. planiceps* presenting no definite tarsal differences *inter se*, which seem to

be certainly distinct in point of sex, differing in the structure of the pygidium and apical ventral segment. If Dr. Sharp were right concerning the sexes of *A. Harti* it is probable that my *A. (Sericesthis) parvipes* would have to be deemed the female of *A. planiceps*, but I hesitate much to accept this conclusion because, in addition to the objection arising from the presence of differences that can hardly be non-sexual among my specimens of *planiceps*, I find differences between that species and *parvipes* which do not seem likely to be sexual, especially in the maxillary palpi (the penultimate joint of which is in *planiceps* notably longer than in *parvipes*). If it were not for the irreconcilable difference between the sculpture attributed by Sharp to the pygidium of *Harti* and the sculpture of the corresponding part in *planiceps* and *parvipes*, I should feel little doubt that the latter two are identical with what Sharp described as male and female of *Harti*. I may add, however, that I am unable to understand Sharp's statement that the prosternum of *Harti* has only a "single" carina behind the coxæ, since that seems to be intended as a character to distinguish it from *A. vigilans*, in which the prosternum is said to have a "prominent acute lamina" behind the coxæ, with no reference to the presence of two or more carinæ. *A. planiceps* has a single small cariniform projection behind its coxæ.

*A. vigilans*, Shp. I am regretfully compelled to disregard this species, as incapable of identification. The diagnosis furnished by its author would apply to at least half-a-dozen species known to me, and there is nothing in the appended note which distinguishes it from any one of four of the species before me. As, however, Sharp makes no mention of his species being pruinose or iridescent, and states that the hind angles of the prothorax are rounded off—and in the only non-iridescent species known to me and resembling *vigilans* in size and colouring the hind angles of the prothorax are not rounded off—it is probable that I have not seen *A. vigilans*. Of the species known to me, *A. chaldeus*, Blackb., is nearest to agreement with Sharp's description, and were it not for its iridescence I should name it "*vigilans*, Shp. (?)." I do not find it to be the case with these insects that iridescence fades with age.

*A. gravicollis*, sp. nov. Ovatus; convexus; modice nitidus; subglaber; purpureo-brunneus supra læte iridescens, clypeo antennis palpis pygidio pedibus corporeque subtus brunneo-testaceis; antennis 8-articulatis, flabello perbrevis; clypeo confertim, fronte sat crebre, minus subtiliter punctulatis; prothorace quam longiori fere duplo latiori, antice minus angustato (latitudine majori superne visa nonnihil ante medium sita), supra subfortiter sat crebre (latera

versus confertim subtilius) punctulato, vix perspicue canaliculato, lateribus minus rotundatis, angulis anticis vix acutis minus productis posticis (superne visis) obtuse rectis, basi marginata utrinque parum sinuata; scutello punctulato; elytris geminato-striatis, sat crebre subfortiter punctulatis; pygidio subfortiter vix crebre (in parte mediana fere lævi) punctulato; tibiis anticis fortiter tridentatis; tarsis posticis minus elongatis minus robustis, articulo basali 2<sup>o</sup> longitudine sat æquali; coxis posticis quam metasternum multo brevioribus; segmento ventrali apicali postice truncato. Long.,  $4\frac{4}{5}$  l.; lat.,  $2\frac{3}{5}$  l.

The most distinctive characters of this species (in comparison with its immediate allies) seem to be the purplish-red tone of colour of its dorsal surface—perhaps not constant—its bright iridescence, and the form of its prothorax (comparatively wide in front, with the greatest width slightly in front of the middle). When I described *A. micans* (Pr. Lin. Soc., N.S.W., 1890, p. 546), I unfortunately confused this species with it as a colour var., and wrote the diagnosis with a view to indicate a much greater variety of colouring than I have now any reason to think can be found in that species. The specimen described was one of those called in the appended note “a bright blue insect.” Consequently I have found it necessary to provide a correction of the description of *A. micans* (*vide infra*). I believe the type of *A. gravicollis* to be a female.

South Australia.

*A. tetricus*, sp. nov. Ovatus vel subovalis; modice convexus; minus nitidus; metasterno longe minus crebre setoso; niger vel piceo-niger, antennis palpis tarsis et (nonnullorum exemplorum, ? alterutrius sexus) tibiis anticis rufis; antennis 8-articulatis, flabello perbrevis; clypeo confertim subrugulose, frõnte sat crebre, subfortiter punctulatis; prothorace quam longiori ut 8 ad 5 latiori, antice sat angustato, supra sat crebre subfortiter punctulato, vix perspicue canaliculato, lateribus leviter arcuatis, angulis anticis vix acutis parum productis posticis (superne visis) rectis, basi marginata utrinque leviter sinuata; scutello punctulato; elytris fortiter geminato-striatis, crebre sat fortiter punctulatis, interstitiis inter striarum paria sat fortiter convexas; pygidio minus crebre vix fortiter punctulato; tibiis anticis extus tridentatis; tarsis elongatis robustis, posticorum articulo basali quam 2<sup>us</sup> vix breviori; coxis posticis quam metasternum multo breviori; segmento ventrali apicali postice leviter vel vix emarginato. Long.,  $4\frac{1}{2}$ - $5\frac{1}{2}$  l.; lat.,  $2\frac{1}{2}$ - $2\frac{2}{5}$  l.

Of this insect five specimens are before me, but I can find

no differences among them that I can confidently affirm to be sexual. Some examples are decidedly ovate, others scarcely dilated behind the middle; in four the front tibiæ are red, in one black; in three the pygidium is distinctly more convex than in the two others; in three the apical ventral segment is decidedly emarginate behind, in two scarcely emarginate. The species is very distinct from *planiceps*, Blackb., not only by its colouring, but also by, *inter alia*, the much less strongly rounded sides of its pronotum, the much more strongly convex interstices between the striæ of each pair of geminate striæ, and the maxillary palpi (especially the penultimate joint) notably shorter.

New South Wales: Bathurst, Jenolan Caves, etc.

*A. consanguineus*, sp. nov. Ovalis; sat convexus; pronoto sparsim subtiliter punctulato, basi utrinque vix sinuata; scutello vix perspicue punctulato; elytris minus crebre punctulatis; cetera ut *A. tetricus*, Blackb. Long., 5 l.; lat.,  $2\frac{1}{5}$  l.

It seems unnecessary to repeat the characters which this species shares with *A. tetricus*; the diagnosis of that species correctly describes the present one except in respect of the characters noted above, which are strongly marked ones. The front tibiæ of this species are red and the apical ventral segment is scarcely emarginate behind. The punctures of the pronotum in this species are very much finer than in *A. planiceps*, Blackb.; in *A. tetricus* they are a trifle coarser and stronger than in the latter.

New South Wales: Bathurst.

*A. creber*, sp. nov. Leviter ovatus (subparallelus); convexus; sat nitidus; subglaber; ferrugineus; supra sat iridescens; antennis 8-articulatis, flabello perbrevis; clypeo confertim, fronte sat crebre, sat subtiliter punctulatis; prothoracæ quam longiori fere duplo latiori, antice sat angustato, supra sat subtiliter sat crebre (latera versus fere confluerent) punctulato, antice leviter canaliculato, lateribus sat rotundatis, angulis anticis acutis sat productis posticis nullis, basi marginata utrinque leviter sinuata; scutello punctulato; elytris geminato-striatis, crebre minus fortiter punctulatis; pygidio crebre vix fortiter punctulato; tibiis anticis extus fortiter tridentatis; tarsis posticis modicis minus robustis, articulo basali quam 2<sup>us</sup> sat breviori; coxis posticis quam metasternum multo brevioribus; segmento ventrali apicali transversim concavo postice late rotundato (fere subtruncato). Long., 5 l.; lat.,  $2\frac{2}{5}$  l.

Less ovate and a little more elongate than *A. indignus*, Blackb., and easily distinguishable from it by the notably finer and closer puncturation of its head pronotum and elytra. The elytral punctures on the interval between the subsutural stria and the next pair of striæ would, if placed in regular rows, form five rows in this species, but would form only four rows in *indignus*. On account of its somewhat less robust tarsi I think it likely that the type of this species is a female.

South Australia: near Adelaide.

*A. (Sericesthis) micans*, Blackb. As noted above under the heading of *A. gravicollis*, sp. nov., I find it necessary to amend the description of *A. micans* as follows:—For “rufa, capite prothorace elytris que rufo-cæruleis iridescentibus,” read “atro-cæruleus, læte iridescens, palpibus antennisque tarsisque rufescentibus”; and in the last line of the diagnosis, to “truncato” add “vel leviter emarginato.”

*A. chalcus*, sp. nov. Ovatus; convexus; sat nitidus; subglaber; rufo-testaceus, supra iridescens; antennis 8-articulatis, flabello perbrevis; clypeo confertim, fronte minus crebre, parum fortiter punctulatis; prothorace nitido, quam longiori fere duplo latiori, antice sat angustato, supra subfortiter sat crebre (latera versus magis crebre) punctulato, parum manifeste canaliculato, lateribus sat rotundatis, angulis anticis acutis sat productis posticis (superne visis) obtusis, basi marginata utrinque manifeste sinuata; scutello punctulato; elytris geminato-striatis, sat crebre subfortiter punctulatis; pygidio sat crebre vix fortiter punctulato; tibiis anticis extus tridentatis; tarsis posticis modice elongatis sat robustis, articulo basali quam 2<sup>us</sup> nonnihil breviori; coxis posticis quam metasternum multo brevioribus; segmento ventrali apicali postice leviter emarginato. Long., 6 l.; lat., 3 l.

Rather brightly iridescent, the iridescence in some lights having a brassy tone. Among the species bearing a general resemblance to it in size colouring and vestiture this species is distinct by its pronotum at its widest evidently behind the middle (viewed from above) and having puncturation which becomes only moderately closer and finer near the lateral margins; also by its pronotum being notably more nitid than in its immediate allies. I am doubtful of the sex of the type. The decidedly emarginate apex of the apical ventral segment, and the somewhat elongate and robust hind tarsi, perhaps indicate its being a male. I have two specimens of narrower and less ovate build and having somewhat less robust tarsi, but not otherwise noticeably different, which may be the other sex, but it is quite possible that they represent another species.

In this species the prothorax is evidently less convex than in most of its allies (*e.g.*, *creber*, Blackb., *gravicollis*, Blackb.) which may be readily seen if specimens be looked at from in front, and which moreover causes the pronotum viewed from the side to appear not so high from the lower to the upper (as seen from that point of view) outline as in *creber*, etc.

New South Wales: Braidwood.

*A. indignus*, sp. nov. Ovatus; convexus; modice nitidus; subglaber; ferrugineus; supra sat iridescens; antennis 8-articulatis, flabello perbrevis; clypeo confertim subrugulose, fronte sat crebre, sat fortiter punctulatis; prothorace quam longiori duplo latiori, antice sat angustato, supra sat crebre (nonnihilo acervatim) sat fortiter punctulato, antice leviter canaliculato, lateribus sat rotundatis, angulis anticis acutis sat productis posticis nullis, basi marginata utrinque leviter sinuata; scutello punctulato; elytris geminato-striatis, fere ut pronotum sed nonnihilo subseriatim punctulatis; pygidio crebre subfortiter punctulato; tibiis anticis extus fortiter tridentatis; tarsis posticis modicis minus gracilibus, articulo basali quam 2<sup>us</sup> manifeste breviori; coxis posticis quam metasternum multo brevioribus; segmento ventrali apicali transversim leviter concavo, postice late rotundato. Long., 5 l.; lat., 2 $\frac{4}{5}$  l.

This species is distinguishable among its immediate allies by the hind angles of its prothorax entirely rounded off, in combination with comparatively strong and not very close puncturation of its pronotum, which is about as close and fine as—but a little stronger than—the corresponding sculpture in the species which I regard (and which stands generally in collections) as *Sericesthis (Melolontha) pruinosa*, Dalm. I am in some doubt of the sex of the specimens before me, but am disposed to think them males on account of the comparative stoutness of the tarsi, which are certainly more slender in some specimens of at least one allied species.

South Australia: taken, I think, near Adelaide.

*A. rectangulus*, sp. nov. Elongatus, vix ovatus; sat convexus; modice nitidus; subglaber; ferrugineus, supra leviter iridescens; antennis 8-articulatis, flabello perbrevis; clypeo confertim, fronte minus crebre, parum fortiter punctulatis; prothorace nitido, quam longiori fere duplo latiori, antice minus angustato, supra subfortiter sat crebre (latera versus paullo magis subtiliter paullo magis crebre) punctulato, vix perspicue canaliculato, lateribus modice arcuatis, angulis anticis acutis modice productis posticis bene determinatis obtusis (superne visis, fere rectis), basi

marginata utrinque parum sinuata; scutelio punctulato; elytris geminato-striatis, sat crebre subfortiter punctulatis; pygidio sat crebre subfortiter punctulato; tibiis anticis extus tridentatis; tarsis posticis modicis, articulo basali quam 2<sup>us</sup> manifeste breviori; coxis posticis quam metasternum sat multo brevioribus; segmento ventrali apicali leviter emarginato. Long.,  $4\frac{1}{2}$  l.; lat.,  $2\frac{1}{2}$  l.

Easily distinguishable from its near allies by the well-defined hind angles of its prothorax, which, viewed from above, seem to be almost right angles, but when looked at from the side are seen to be in reality decidedly obtuse. I have four specimens which I took flying in the evening; all are in good condition. I can find no difference likely to be sexual among them, unless it be that one of them is more ovate and a little less elongate than the others. The body beneath is very nitid, the metasternum with only a few fine hairs.

New South Wales: Blue Mountains.

*A. (Scitala) languida*, Er. (!=*Sericesthis nigrolineata*, Boisd.). In a former memoir (Pr. Lin. Soc., N.S.W., 1890, pp. 541, etc.) I have discussed the various species which Boisduval named (the word "described" is hardly applicable) under the undescribed generic name *Sericesthis*, and in that memoir I indicated (as was then the case) that I had no specimen before me which I could confidently identify with *A. languida*, Er., but mentioned that previous authors had made the name a synonym of *A. nigrolineata*, Boisd. Having subsequently seen, as noted under *Scitala*, the type of *S. languida*, Er., I am able to say that the synonymy cited is probably correct, for the following reasons. There are two species, and only two, known to me which the very short description of *nigrolineata* will fit, viz., that which is accepted (correctly, I believe), as *Sericesthis (Melolontha) pruinosa*, Dalm., and *Anodontonyx (Scitala) languida*, Er. That the latter is the species Boisduval described rests upon the authority of Blanchard. Now Blanchard presumably had before him the type of Boisduval's species, but certainly not that of *languida*, nor of *S. pruinosa*, Dalm. He, however, had before him Tasmanian specimens of an insect which he regarded as *languida*, Er. There can be little doubt that he was right in so regarding them, so far as I can judge, inasmuch as I have never seen *S. pruinosa*, Dalm., from Tasmania, and should probably have done so if it occurred (at any rate commonly) in Tasmania; and, moreover, if it had been before Blanchard he could not possibly have supposed it to be *languida*, Er. The conclusion, therefore, seems unavoidable that the very recognizably-described *A. languida* must be regarded as identical with the

scarcely-described *A. nigrolineata* of Boisduval, and that the latter name must stand.

(2) *A. (Sericesthis) nigrolineata*, Boisd. This is a common species and seems to be widely distributed, as I have specimens that seem to be specifically identical from various localities in Tasmania, Victoria, and New South Wales. I can find no well-defined sexual differences among them; some, however (which I take to be males) are of subparallel elongate form with the ventral segments much flattened, while others are somewhat strongly ovate in form, with ventral segments more convex.

*A. hirticeps*, sp. nov. Ovatus vel sat parallelus; convexus; minus nitidus; subglaber, sed capite antice setis elongatis erectis vestito; antennis 9-articulatis, flabello perbrevis; clypeo confertim, fronte sat crebre, subfortiter punctulatis; prothorace quam longiori vix fere duplo latiori, antice sat angustato, supra minus crebre parum subtiliter nec profunde punctulato, vix perspicue canaliculato, lateribus parum arcuatis, angulis anticis acutis posticis acute rectis, basi marginata utrinque parum sinuata; scutello punctulato; elytris geminato-striatis, fortiter fere subrugulose punctulatis; pygidio sat crebre minus fortiter punctulato; tibiis anticis extus tridentatis; tarsis posticis modicis, articulo basali quam 2<sup>us</sup> manifeste breviori; coxis posticis quam metasternum multo brevioribus; segmento ventrali apicali postice haud vel vix emarginato. Long.,  $4\frac{2}{3}$ - $5\frac{1}{2}$  l.; lat.,  $2$ - $2\frac{1}{2}$  l.

This is the only *Anodontonyx* known to me with antennæ of 9 joints. Its resemblance is to *A. nigrolineata*, Boisd., from which it differs, independently of its antennæ, by, *inter alia*, its very evidently less rugulose elytra. I do not find any definite sexual differences among the four specimens before me.

New South Wales: Sydney.

*A. antennalis*, sp. nov. Leviter ovatus; minus convexus; parum nitidus; subglaber, clypeo (exempli typici) setis elongatis erectis perpaucis vestito; hoc fortiter minus confertim, fronte sparsim subtiliter, punctulatis; antennis 8-articulatis, articulo 2<sup>o</sup> gracili sat elongato, flabello perbrevis; palporum maxillarium articulo apicali quam penultimus vix dimidio longiori; prothorace quam longiori fere duplo latiori, antice minus angustato, supra crebre subtiliter (latera versus, confertim) punctulato, haud (exempli typici) canaliculato, lateribus leviter arcuatis, angulis anticis posticis (superne visis) acute rec-

(2) *Vide infra* (Note A).

tis, basi marginata utrinque leviter sinuata; scutello punctulato; elytris geminato-striatis, sat fortiter sat crebre fere subrugulose, punctulatis; pygidio confertim fortius subrugulose punctulato; tibiis anticis extus tridentatis; tarsis posticis sat elongatis, articulo basali quam 2<sup>us</sup> sat breviori; coxis posticis quam metasternum duplo brevioribus; segmento ventrali apicali postice manifeste emarginato. Long., 4 l.; lat., 2 l.

This species is an extremely isolated one in respect of several characters. Its short maxillary palpi (especially the short apical joint) are remarkable. Its antennæ are quite unique in the genus (if not among all the Australian *Sericoides*), the second joint being (not a part of the scape, which consists only of the basal joint, but) evidently a part of the stipes, and not at all thicker than the 3rd joint. The general appearance is that of a very small specimen of *A. nigrolineata*, Boisd. I believe the type to be a male.

New South Wales: near the National Park.

#### NOSPHTHIS.

I have not anything to be added to my remarks on this genus in Tr. R. Soc., 1898, pp. 38, 39; but have recently received a second species of which the following is a description.

*N. Perkinsi*, sp. nov. Sat nitida; testacea, supra magis ferruginea; pilis elongatis fimbriata; corpore subtus pygidioque pilosis; capite confertim rugulose punctulato, clypeo late truncato-rotundato antice fortiter reflexo; palporum maxillarium articulo penultimo quam antepenultimus sat multo breviori; antennis 9-articulatis, flabello perbrevis quadrato 3-articulato; prothorace sat fortiter transverso, minus convexo, antice fortiter angustato, perspicue canaliculato, quam caput multo sparsius punctulato, lateribus arcuatis, angulis anticis vix acutis posticis obtusis, basi utrinque leviter sinuata; scutello punctulato; elytris æqualiter sat fortiter striatis, interstitiis leviter convexis fortius vix crebre punctulatis; pygidio subnitido, confertim subtiliter subaspere punctulato; tarsis sat brevibus, articulo apicali inter unguiculorum baseos lamina utrinque instructo, posteriorum articulo basali quam 2<sup>us</sup> sat breviori; coxis posticis brevibus. Long., 5½ l.; lat., 2½ l.

Notably smaller and of narrower form than *N. parvicornis*, Blackb. The type is much paler in colour. The prothorax is much less convex transversely (*i.e.*, much less declivous on the sides). The elytra are more regularly striate (in *parvicornis* there is an evident want of evenness in the sub-

lateral striæ making some of the interstices wider in some than in other parts of their length.). The elytral interstices are more decidedly convex, the pygidium more nitid and by no means so extremely closely punctulate, and the penultimate joint of the maxillary palpi is shorter (in *parvicornis* longer) than the antepenultimate joint.

North Queensland. Sent by Mr. Perkins.

#### FRENCHELLA.

Although this genus was founded so recently as in 1892, species referable to it seem to have been described under other generic names by most of the earlier authors. It is undoubtedly a near ally of *Haplonycha*, but the entirely different character of the elytral sculpture in its species from that of the species of *Haplonycha* (with no intermediate forms, so far as I have observed) appears to me fully to warrant a separate generic name. An elytral sculpture uniform in kind unquestionably accompanies persistent structural characters of apparently greater importance through all the extensive genera of Australian *Sericoides*, from which it may fairly be concluded that a particular type of elytral sculpture is generic. If *Frenchella* were included in *Haplonycha* the genus so constituted would furnish the only instance known to me of any considerable variety in kind (as distinguished from degree) in elytral sculpture within the limits of a genus.

The assignment to *Frenchella* of species described by the early authors is a matter of considerable difficulty and calls for a separate note on each of those which there seems to be any ground for referring to the genus.

*Haplonycha rugosa*, Burm. On full reflection I think that this is most probably the species that I called *Frenchella aspericollis*, and I therefore propose to sink my name in favour of Burmeister's.

*Haplonycha striatella*, Blanch. The phrase "elytris transversim conflunter punctatis" in Blanchard's description fits no Australian *Sericoid* species known to me except *Diphyllocera kirbyana*, White. Unfortunately Blanchard gives no information beyond "N. Holland" as to the habitat of his species and no statement of size except that it is "smaller than *H. obesa* and *scutalis*." The description of *H. striatella* fits the female of *D. kirbyana* very well except that the scutellum is called "læve," which it is not in *kirbyana*, but nevertheless I believe it to be that insect. I cannot find any mention of *D. kirbyana* under that name in Blanchard.

*Haplonycha iridescens*, Blanch. I identify this species with confidence. Its characters will be found indicated in the following tabulation.

- A. Antennæ consisting of only eight joints.
- B. Pronotum punctured much less closely than the head ... .. hispida, *Blackb.*
- BB. Pronotum (especially on the lateral parts) punctured scarcely or not less closely than head.
- C. Pygidium not distinctly carinate, and scarcely rugulose ... .. approximans, *Blackb.*
- CC. Pygidium very strongly carinate and rugulose ... .. rugosa, *Burm.*
- AA. Antennæ consisting of nine joints.
- B. Hind angles of prothorax sharply defined.
- C. Head and pronotum clothed with long erect fine hairs ... .. hirticollis, *Blackb.*
- CC. Head and pronotum glabrous (unless at margins).
- D. Puncturation of elytra rugulose and somewhat close ... .. iridescens, *Blanch.*
- DD. Puncturation of elytra non-rugulose and much less close ... .. sparsiceps, *Blackb.*
- BB. Hind angles of prothorax rounded off, or very obtuse.
- C. Prothorax considerably less than twice as wide as long ... .. lubrica, *Blackb.*
- CC. Prothorax fully twice as wide as long ... .. calorata, *Blackb.*

*F. calorata*, sp. nov. Ovata, convexa; parum nitida; supra subglabra; subtus sat pilosa; antennis 9-articulatis, flabello modico quam articuli 2-6 conjuncti sublongiori; capite pronotoque confertim minus fortiter sat rugulose sat æqualiter punctulatis; prothorace quam longiori duplo latiori, antice modice angustato, supra haud canaliculato, lateribus sat fortiter rotundatis, angulis anticis acutis modice productis posticis rotundatis, basi marginata utrinque vix manifeste sinuata; scutello confertim subtilissime punctulato; elytris obsolete striatis, interstitiis latis planis vix crebre sat subtiliter punctulatis; pygidio confertim subtilissime punctulato; tibiis anticis fortiter dilatatis extus obtuse bidentatis; tarsis posticis minus elongatis, articulo basali quam 2<sup>us</sup> sublongiori; coxis posticis quam metasternum multo brevioribus; segmento ventrali apicali truncato. Long., 6 l.; lat., 3½ l.

I feel some hesitation in placing this species in *Frenchella*. I have no doubt the unique type is a female, and it is quite likely that the discovery of the male will eventually involve the creation of a new genus for its reception. I do not, however, find any definite character in the female inconsistent with its being a *Frenchella* except the remarkable structure of its front tibiæ, which are those of a *Pachygastra*, from which genus its large head, broad clypeus and elytral striæ non-geminate, *inter alia*,

separate it very widely. In my tabulation of the Australian *Sericoid* genera (Tr.R.S., S.A., 1898, pp. 32-34) I relied upon the remarkable form of the front tibix as a generic character, which renders it necessary for me to add (*vide infra*) a note on *Pachygastra* calling attention to this insect which, in the absence of the male, I must regard as a *Frenchella* presenting a very exceptional character. It should be noted that in this species the apical joint of the labial palpi, without differing very strongly from the *Frenchella* type, is certainly less elongate and cylindrical than in the other species known to me of the genus.

North Queensland. Sent by Mr. Koebele.

#### PLATYDESMUS.

The species of this genus have been found as yet (so far as I know) only in New South Wales and Queensland. They are somewhat closely allied to *Frenchella*, but are readily distinguishable from that genus by the structure of their labial palpi. They are for the most part notably smaller than the species of *Frenchella* and are insects of less robust build, with the antennal sexual characters—so far as known—more pronounced, the flabellum of the male, at any rate, being notably longer, and the antennal difference between the sexes being in the one species of which the female is known very much greater. The antennæ in all the known species consist of nine joints and in all except one the flabellum has only three joints. The following table indicates characters by which the known species may be identified. They are for the most part insects of dull colours and not particularly interesting appearance.

- |     |  |                            |
|-----|--|----------------------------|
| A.  | Antennal flabellum consisting of only three laminae.       |                            |
| B.  | Basal 2 joints of hind tarsi scarcely differing in length. |                            |
| C.  | Pronotum coarsely punctulate ...                           | sulcipennis, <i>Macl.</i>  |
| CC. | Pronotum finely punctulate ...                             | obscuricornis,             |
| BB. | Basal joint of hind tarsi notably shorter than 2nd joint.  | <i>Blanch.?</i>            |
| C.  | Prothorax fully twice as wide as long ... ..               | major, <i>Blackb.</i>      |
| CC. | Prothorax notably narrower ...                             | inamœnus, <i>Blackb.</i>   |
| AA. | Antennal flabellum consisting of four laminae ... ..       | inusitatus, <i>Blackb.</i> |

*P. (Haplonycha) obscuricornis*, Blanch. I have before me several specimens of a *Platydesmus* (from the neighbourhood of Sydney) which appear to be in all probability identical with Blanchard's *Haplonycha obscuricornis*. I should consider the identification quite reliable if it were not that a discrepancy certainly exists in respect of the colouring of the

antennæ. Blanchard says "antennis obscure rufis, clava picea." "Obscure rufæ" is fairly applicable to the antennæ of the species before me, but I do not find that the flabellum of any of the specimens is conspicuously darker than the preceding joints. The agreement, however, with the description is so satisfactory in all other respects that I am disposed to conjecture the antennal flabella of the type to have been discoloured by some accidental means and to give this *Platydesmus* the name "*P. (Haplonycha) obscuricornis*, Blanch. (?)." It is an insect somewhat closely allied to *P. sulcipennis*, Macl., which is the type of the genus, differing from it *inter alia* by the closer and considerably finer puncturation of the dorsal surface. In the present species the dorsal puncturation in all parts is not much different from the corresponding puncturation in the common species known as *Sericesthis (Melolontha) pruinosa*, Dalm.; in *sulcipennis* much coarser. In colour this insect is extremely variable, only one of the specimens known to me being coloured (disregarding the antennal flabellum) as the type, in the rest the head pronotum elytra pygidium legs and undersurface being some or all of them more or less reddish. One of the specimens before me is evidently a female—the only female *Platydesmus* that I have seen. It is of evidently robust and more convex form than the male, with the antennal flabellum much shorter (scarcely longer than joints 2-6 together), the tarsi evidently smaller, the pygidium less convex, the abdomen very convex longitudinally (*i.e.* as viewed from the side), with its apical segment widely rounded behind. In the male the abdomen is much flattened, with its apical segment not conspicuously different from that of the female.

*P. sulcipennis*, Macl. My specimen of this insect was given to me by Sir W. Macleay, and I have since compared it with the typical example.

*P. major*, sp. nov. Mas. Ovalis; sat niditus; supra subglaber, lateribus ciliatis; subtus sat pilosus; totus ferrugineus; antennis 9-articulatis, flabello perlongo (quam prothorax nullo modo breviori) arcuato 3-articulato; palpis maxillaribus sat elongatis, quam capitis inter oculos latitudo parum brevioribus; clypeo confertim vix subrugulose, fronte pronotoque crebre nec rugulose, subtilius punctulatis; prothorace quam longiori duplo latiori, antice haud fortiter angustato, mox ante basin setis elongatis fimbriato, lateribus leviter arcuatis, angulis anticis sat obtusis posticis obtusis subrotundatis, basi marginata utrinque sinuata; scutello fere lævi; elytris sat fortiter punctulato-striatis, striis haud geminatis ordinatis, interstitiis planis sat fortiter vix crebre punctulatis; pygidio fere ut pronotum, sed in media parte fere lævi, punctulato;

tibiis anticis extus tridentatis; tarsis posticis modicis, articulo basali quam 2<sup>us</sup> sat breviori; coxis posticis brevibus, metasterno duplo brevioribus; segmento ventrali apicali postice leviter emarginato. Long., 7 l.; lat., 3½ l.

Its large size, very long antennal flabellum, long maxillary palpi, and very short hind coxæ (scarcely half as long as the metasternum) render this species very distinct from its known congeners. None of these characters, however, appear to me to indicate generic distinctness.

New South Wales: Young. Given to me by Mr. Sloane.

*P. inamœnus*, sp. nov. Mas. Ovatus; sat nitidus; supra subglaber, lateribus ciliatus; subtus pilosus; totus ferrugineus; antennis 9-articulatis, flabello 3-articulato haud arcuato sat elongato (capiti longitudine sat æquali); palpis maxillaribus minus elongatis, quam capitis inter oculos latitudo multo brevioribus; capite crebre vix subrugulose minus subtiliter, pronoto subtilius minus crebre, punctulatis; prothorace quam longiori fere ut 5 ad 3 latiori, antice sat fortiter angustato, lateribus modice arcuatis, angulis anticis acutis posticis bene definitis obtusis, basi marginata utrinque sinuata; scutello fere lævi; elytris sat fortiter punctulato-striatis, striis haud geminatis ordinatis, interstitiis planis sat fortiter subcrebre punctulatis; pygidio sat crebre sat fortiter (sed in media parte fere lævi) punctulato; tibiis anticis extus tridentatis; tarsis posticis modicis, articulo basali quam 2<sup>us</sup> sat breviori; coxis posticis sat brevibus sed quam metasternum nullo modo duplo brevioribus; segmento ventrali apicali postice leviter emarginato. Long., 5 l.; lat., 2½ l.

An insect of unattractive appearance, not unlike the preceding (*P. major*) in respect of colouring and sculpture; but much smaller and with much shorter antennal flabellum (which is not curved), much shorter maxillary palpi, prothorax much less strongly transverse, etc., etc.

North Queensland. Sent to me by Mr. Sloane.

*P. inusitatus*, sp. nov. Mas. Ovatus; sat nitidus; supra subglaber, lateribus ciliatis; subtus pilosus; piceo-ferrugineus, antennis capite pronotoque obscurioribus; antennis 9-articulatis, flabello 4-articulato arcuato sat elongato (quam caput nonnihil longiori); palpis maxillaribus minus elongatis, quam capitis inter oculos latitudo multo brevioribus; capite confertim subrugulose minus subtiliter, pronoto fortiter sat crebre, punctulatis; prothorace quam longiori ut 4½ ad 3 latiori, antice sat fortiter angustato, lateribus modice arcuatis, angulis anticis acutis posticis obtusis, basi marginata utrinque sinuata; scutello

fere lævi; elytris fortiter punctulato-striatis, striis haud geminatim ordinatis, interstitiis convexis fortiter sat crebre punctulatis; pygidio sat crebre minus fortiter (sed in media parte fere lævi) punctulato; tibiis anticis extus tridentatis; tarsis posticis modicis, articulo basali quam 2<sup>us</sup> sat breviori; coxis posticis sat brevibus sed quam metasternum nullo modo duplo brevioribus; segmento ventrali apicali postice vix emarginato. Long., 5 l.; lat., 2 $\frac{2}{5}$  l.

The only *Platydesmus* known to me in which the antennal flabellum of the male consists of four joints. The alternate interstices of the elytra are a trifle wider than the other interstices but there is no real approximation to the kind of elytral sculpture that distinguishes the group of genera in which I have called the elytra "geminate-striate." The scutellum, as in some other species where I have used the term "*sublævi*," has only three or four punctures, generally near the base.

Queensland: Tambourine Mount. Sent to me by Mr. French.

#### SERICESTHIS.

*S. (Scitala) suturalis*, Macl. The unique type of this species in the Australian Museum is in very bad condition having lost its antennæ. There can however be no reasonable doubt of its being a true *Sericesthis* closely allied to *S. pruinosa*, Dalm. It is however a good species readily distinguishable from *pruinosa* by the pronotum at its hind angles expanded and distinctly upturned.

*S. (Scitala) pruinoseλλα*, Brenske. I can find no mention of any character in the description of this species inconsistent with its being a later name for *S. suturalis*, Macl.

#### NESO.

I have to add another species to this genus. The following table shows the distinctive characters of the five species now known. The three species previously described by me differ considerably *inter se* in the antennal sexual characters. In *usta*, Blackb., the laminæ of the male are straight and about equal in length to the preceding joints together; in *yorkensis*, Blackb., the laminæ are distinctly longer and are curved; in *planicollis*, Blackb. [= *flavipennis* (*Platydesmus*), Macl.] they are curved and still longer (well on to twice as long as the preceding joints together). In *usta*, moreover, the elytra are constantly,—so far as I have observed,—of a dark umber-brown colour,—in the other two, testaceous. The new species described below is not very close to the others, being much larger, with prothorax of different shape, pygi-

dium carinate (at least in the female), etc. *Scitala armaticeps*, Macl., is (as noted above under *Scitala*) a member of this genus, and the name *Scitala impressa*, Brenske, probably is also a name of the same insect. Having examined in the Macleay Museum the type of *Platydesmus flavipennis*, Macl., I am able to say that it also is a *Neso* and is identical with my *N. planicollis*.

- A. A conspicuous transverse carina on the clypeus ... .. armaticeps, Macl.  
 AA. Clypeus not having a transverse carina.  
 B. Hind angles of prothorax scarcely defined and very blunt. Size small.  
 C. Elytral interstices in all respects uniformly punctulate ... .. usta, Blackb.  
 CC. Alternate interstices of elytra not punctured uniformly with the other interstices.  
 D. Pronotum quite strongly declivous behind ... .. yorkensis, Blackb.  
 DD. Pronotum not declivous behind flavipennis (*Platydesmus*), Macl.  
 BB. Hind angles of prothorax (viewed from above) well defined and almost right angles. Size large ... .. ducalis, Blackb.

*N. ducalis*, sp. nov. Fem. Ovata; subnitida; supra subglabra; subtus breviter pilosa; obscure ferruginea; antennis 9-articulatis, flabello 3-articulato quam articuli præcedentes conjuncti sat breviori; clypeo confertim rugulose, fronte sat crebre nec rugulose, minus fortiter punctulatis; prothorace quam longiori ut 7 ad 4 latiori, antice sat fortiter angustato, supra vix crebre minus fortiter punctulato, lateribus (superne visis) leviter arcuatis postice subparallelis, angulis anticis subacutis parum productis posticis (superne visis) fere rectis bene definitis, basi utrinque leviter sinuata ante scutellum subtiliter marginata; scutello fere lævi; elytris punctulato-striatis, striis manifeste geminatim ordinatis, interstitiis alternis haud (alternis leviter) convexis (alternis sat crebre, alternis minus crebre, punctulatis); pygidio longitudinaliter carinato, crebre fortiter sat rugulose punctulato; tibiis anticis extus tridentatis; tarsis posticis modicis sat robustis, articulo basali quam 2<sup>us</sup> nonnihil breviori; coxis posticis quam metasternum sat brevioribus; segmento ventrali apicali, postice subtruncato. Long., 7 l.; lat., 4 l.

This species, as noted above, is readily separated from its known congeners by its much larger sizes, differently-shaped prothorax, etc. The fine raised line on the basal margin of

the pronotum in front of the scutellum is very distinct in this species and is more or less distinctly traceable when looked for in all the other species of *Neso* that I have examined except in *N. usta*, Blackb., and the typical specimen of *N. armaticeps*, Macl.

North Queensland: Cairns. Sent by Mr. R. C. L. Perkins.

#### SCITON.

The species of this genus seem to be extremely rare in collections. The following new species is in the South Australian Museum.

*S. variicollis*, sp. nov. Fem. Leviter ovatus; sat elongatus; subopacus, nonnihil pruinosis; supra glaber; subtu parce pilosus; rufoferrugineus, antennarum flabello testaceo; capite confertim subtilius ruguloso, hoc inter oculos quam clypei margo anticus truncatus ut 4 ad 3 latiori; antennis 9-articulatis, flabello quam articuli 2-6 conjuncti breviori; prothorace quam longiori ut 7 ad 4 latiori, antice leviter angustato, supra subtilius sat crebre punctulato, postice sat fortiter declivi, lateribus (superne visis) leviter arcuatis, angulis anticis acutis minus productis posticis (superne visis) obtusis, basi marginata utrinque sinuata, scutello punctulato longitudinaliter leviter carinato; elytris geminato-striatis, interstitiis subfortiter sat crebre punctulatis (alternis angustis convexis); pygidio nitido crebre subtiliter punctulato; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2<sup>us</sup> sat longiori, coxis posticis quam metasternum sat brevioribus; segmento ventrali apicali postice subtruncato. Long.,  $7\frac{1}{2}$  l.; lat.,  $3\frac{1}{2}$  l.

Resembles *S. ruber*, Blackb., from which it differs *inter alia* by its clypeus wider in front (in *ruber* the truncate front margin of the clypeus is very little more than half as wide as the interval between the eyes), its prothorax less transverse and less narrowed in front and strongly declivous behind, and the basal joint of its hind tarsi notably longer in proportion to the 2nd joint. Its very much larger size, as well as its clypeus wider in front, etc., readily distinguishes this species from *S. paullus*, Blackb.

Western Australia: Coolgardie.

#### BYRRHOMORPHA.

I have before me an undescribed species belonging to Mr. Lea which is certainly a member of this genus, although its inclusion therein involves the removal from the generic diagnosis of the words "labrum supra clypeum sursum productum." The genus, however, is abundantly distinct on ac-

count of other characters, and as the form of the labrum was not referred to in my tabulation of Australian *Sericoid* genera in placing *Byrrhomorpha*, the fact now indicated that that character is here (as in *Heteronyx*) not generic, will not introduce confusion into the use of the tabulation.

*B. anomala*, sp. nov. Ovatus; valde robusta; valde convexa; subnitida; subglabra; nigro-picea, antennis palpisque rufis; capite prothoraceque confertim rugulose sat fortiter punctulatis; antennis 9-articulatis, flabello 4-articulato, hujus laminis (exempli typici) articulis 2-5 conjunctis longitudine sat æqualibus; labro sat porrecto sed haud reflexo; clypeo profunde emarginato; prothorace quam longiori ut 7 ad  $4\frac{1}{2}$  latiori, antice fortiter angustato, lateribus leviter arcuatis, angulis anticis acutis sat productis posticis (superne visis) rectis extrorsum subproductis, basi marginata utrinque leviter sinuata; scutello magno basin versus punctulato; elytris geminatim striatis, sat fortiter rugulose punctulatis, interstitiis alternis angustis sat lævibus; pygidio fere ut pronotum punctulato; tibiis anticis extus tridentatis; tarsorum posticorum articulo basali quam 2<sup>us</sup> paullo breviori; coxis posticis quam metasternum duplo brevioribus; segmento ventrali apicali postice sinuato. Long.,  $6\frac{1}{2}$  l.; lat.,  $3\frac{1}{2}$  l.

This species is of more elongate form than its described congeners, and differs notably from them both in the flabellum of its antennæ consisting of four laminæ. The sculpture of the elytra in this species resembles that of *B. ponderosa*, Blackb. except in the puncturation of the alternate (wide) interstices being much closer and much less coarse. I believe the specimen before me to be a female, judging from the form of its ventral segments. Among the comparatively few specimens that I have seen of the genus I do not find any strongly-marked characters likely to be sexual, and it is possible that I have seen only one sex.

New South Wales: Galston.

The following table shows distinctive characters of the three species now known.

A.	Antennal flabellum consisting of only three laminæ.	
B.	All the elytral interstices decidedly, and about equally, convex. Size small ... ..	verres, Blackb.
BB.	Only the alternate narrow interstices of the elytra convex. Size much larger ... ..	ponderosa, Blackb.
AA.	Antennal flabellum consisting of four laminæ ... ..	anomala, Blackb.

It will be well to add, here, a note that *Scitala pallidula*, Macl. (of which I have recently examined the type) might

perhaps by my tabulation of the Australian *Sericoid* genera be referred to *Byrrhomorpha*, on account of its clypeus being lightly emarginate across the front. *S. pallidula* is, as indicated above, an isolated form which may prove, when its sexes are known, to require the formation of a new genus (as Macleay forecasted). It is, however, very far removed from *Byrrhomorpha* which is a genus of extremely robust coarsely sculptured insects with hind tibiæ very stout and strongly dilated at their apex; while *S. pallidula* is altogether of the *Scitula* build,—of fragile form and having hind tibiæ elongate slender and almost without apical dilatation.

#### OCNODUS.

The presence of conspicuous tufts of hairs on the under surface of the tarsal joints seems to be the most noticeable character of this genus. The extremely short hind coxæ also furnish a noteworthy character. The antennal structure, judged by the species as yet known, seems to be uniform—which is very unusual in the Australian *Sericoides*. The structure of the labrum is extremely variable and furnishes a valuable specific character. The form of the hind angles of the prothorax is most remarkable. In all the species known to me these angles are really obtuse or subrectangular, but owing to the curve of the convexity on the dorsal surface (except perhaps in *O. lugubris*, Blackb.), they appear acute or even spiniform if the prothorax be looked down upon from directly above it. I have now three additional species before me which are described below. The following table shows characters by which the species known may be distinguished.

It is possible that some of the insufficiently-described species of the early authors (discussed by me under the heading of *Scitula*, &c.) may be attributable to this genus, but I think it improbable, as the genus is not known to occur in the localities where most of the species in question were found.

When I described the *Coleoptera* of the Elder Expedition I attributed to this genus with a strong expression of doubt a species which I described under the name *ferrugineus*. I am now satisfied that it must not remain associated with the other species referred by me to *Ocnodus*, and that its real affinities are with *Caulobius*, under which generic name I have already recorded it (above) in this memoir.

I must here repeat what I have already notified, viz., that since I have never succeeded in identifying the typical species of *Ocnodus* (*O. decipiens*, Burm.) there is a doubt whether the species to which I have applied the name *Ocnodus* are really congeneric with Burmeister's insect. It will be well to remember that the generic position of those species will be best expressed by calling them *Ocnodus*, Blackb. (?Burm.).

## A. Elytra non-setose.

- B.\* Labrum small, scarcely projecting from front face of head, its summit very distant from summit of front face of head.
- C. Basal edging of pronotum very distinctly thickened and more elevated at its ends.
- D. Clypeus evenly rounded in front fallax, *Blackb.*  
 DD. Clypeus truncate in front ... lepidus, *Blackb.*
- CC. Basal edging of pronotum uniformly fine ... .. lugubris, *Blackb.*
- BB. Labrum much larger, distinctly prominent, its summit not much below summit of front face of head.
- C. Clypeus in front widely and very feebly emarginate.
- D. Basal declivity of pronotum nitid and almost punctureless (a row of punctures close to basal edging) ... .. suspiciosus, *Blackb.*
- DD. Basal declivity of pronotum punctured scarcely differently from the rest of the surface ... spinicollis, *Blackb.*
- CC. Clypeus in front deeply angularly emarginate ... .. scissiceps, *Blackb.*
- BBB. Labrum (viewed from above) scarcely prominent, but its summit near summit of front face of head porosus, *Blackb.*
- AA. Elytra setose ... .. decipiens, *Burm.*

*O. lepidus*, *Blackb.* I have recently received two female specimens of *Ocnodus* taken by Mr. Perkins in Queensland, which I regard with some hesitation as this species, of which the male only was previously known. They are somewhat larger (long. 6 l.) than I should expect the female of *lepidus* to be and are considerably less nitid than the male, with the dorsal puncturation a trifle stronger and the hind angles of the prothorax slightly less obtuse, so that from a certain point of view (looked at obliquely across the insect) they appear more sharply subdentiform than those angles appear in *lepidus* (male) from a similar point of view. Moreover the hind tarsi are evidently stouter (which is not likely, I think, to be a female sexual character). It is quite possible, therefore, that they represent a distinct closely allied species.

*O. lugubris*, *Blackb.* At the time when I described this species I regarded my specimens as females, but I have now no doubt that one of them is a male. Its sexual characters, however, are very slight, consisting in considerably greater stoutness of the front tarsi, less convexity of the ventral segments, and a difference in the pygidium—which is perpendicular in the female but inclined inward in the male so that

\* For notes on labrum *vide infra* *O. porosus*, sp. nov.

its apex seems to push a little into the apical ventral segment.

*O. suspiciosus*, sp. nov. Mas. Ovalis; sat nitidus; subglaber; piceus, antennis palpisque testaceis; illis 9-articulatis, flabello 3-articulato quam articuli præcedentes 5 subbreviori; labro magno producto profunde emarginato; clypeo crebre fortiter subrugulose punctulato, antice late leviter emarginato, fronte fortiter minus crebre nec rugulose punctulato; prothorace quam longiori fere duplo latiori, antice parum angustato, supra fortiter inæqualiter vix crebre punctulato, basin versus fere lævi, lateribus leviter sinuatim arcuatis, angulis anticis subacutis parum productis posticis (superne visis) acutis subdentiformibus, basi marginata utrinque sinuata; scutello punctulato; elytris fortiter sat crebre subseriatim punctulatis; pygidio crebre sat grosse punctulato; tibiis anticis extus fere inermibus; tarsis anticis quam tibiæ multo longioribus, posticorum articulo basali quam 2<sup>us</sup> sublongiori; coxis posticis quam metasternum fere triplo brevioribus; segmento ventrali apicali postice late leviter emarginato; corpore subtus fortiter punctulato. Long.,  $4\frac{1}{2}$  l; lat., 2 l.

The elytral puncturation gives a slight suggestion of geminate arrangement in the form of pairs of rows of punctures slightly more regularly seriate than the intermediate rows (about three in number) which occupy the intervals between those pairs. This species is somewhat close to *O. spinicollis*, Blackb. It is smaller and in all parts somewhat less strongly punctulate, the pronotum almost punctureless immediately in front of the base, the hind angles of the pronotum less dentiform, the clypeus in front less widely and a little more strongly emarginate, the external margin of the front tibia with only a single feeble projection above (and close to) the apical projection (in *spinicollis* there are two strong teeth above the apical projection), the pygidium non-carinate. It is possible that some few of the above distinctions may be sexual rather than specific and may be absent in the female of *O. suspiciosus*, but that is not likely since I do not find them distinguishing the sexes in *O. lugubris*,—the only species of the genus of which I am confident that I have seen both sexes.

Western Australia: Perth. Sent by Mr. Hamilton.

*O. scissiceps*, sp. nov. Mas. Breviter ovalis; minus nitidus; subglaber; rufopiceus, antennis palpisque nonnihil dilutioribus; illis 9-articulatis, flabello 3-articulato quam articuli præcedentes 5 conjuncti manifeste breviori; labro magno producto, profunde bilobo, lobis (superne visis) subspiniformibus; clypeo antice profunde angulatim

emarginato, cum fronte confertim fortiter ruguloso; prothorace quam longiori duplo latiori, antice quam postice haud angustiori, supra confertim subtilius punctulato, lateribus (superne visis) leviter sinuatim arcuatis angulis anticis acutis sat productis posticis (superne visis) sat acute rectis, basi marginata utrinque parum sinuata; scutello crebre sat subtiliter punctulato; elytris crebre sat subtiliter (hic et illic subseriatim) punctulatis; pygidio pernitido, grosse crebrius punctulato, obsolete carinato; tibiis anticis extus minus perspicue dentatis; tarsis anticis quam tibiæ paullo longioribus, posticorum articulo basali quam 2<sup>us</sup> vix longiori; coxis posticis quam metasternum plus quam duplo brevioribus; segmento ventrali apicali per pygidium (hoc subtus flexo) profunde emarginato; corpore subtus fortiter punctulato. Long.,  $4\frac{1}{2}$  l.; lat.,  $2\frac{1}{2}$  l.

The pygidium strongly bent under the body and causing the apical ventral segment to be strongly emarginate seems to indicate the unique specimen before me of this insect to be certainly a male. In the other males known to me of the genus a similar structure is slightly discernible (as compared with the structure of the same parts in the specimens which I judge to be females of the genus). I have not found in it any other character likely to be sexual on account of its being common to the other males and not to the females known to me of the genus. There is an almost obsolete blunt tooth on the external margin of the front tibiæ slightly above the apical projection. The elytra present slight indications of geminate sculpture in a tendency of the punctures to fall into pairs of traceable rows,—the pairs being separated by intervals in which there is no trace of seriate arrangement, but this character in the sculpture needs to be looked for, being very inconspicuous. The species is very isolated among its congeners by many characters,—form of labrum and clypeus, comparatively fine puncturation of dorsal surface, etc.

Western Australia: Coolgardie. Taken, I believe, by my son.

*O. porosus*, sp. nov. Breviter late ovalis: sat nitidus; subglaber; piceo-niger, antennis palpisque rufis; illis 9-articulatis, flabello 3-articulato quam articuli præcedentes 5 conjuncti manifeste breviori; labro sat magno parum producto (hujus altitudine quam clypei frontis pars supra majori); clypeo antice rotundato, cum fronte grosse sat crebre punctulato; prothorace quam longiori duplo latiori, antice parum angustato, supra sparsim sat grosse punctulato, lateribus (superne visis) leviter sinuatim

arcuatis, angulis anticis acutis sat productis posticis (superne visis) sat acute dentiformibus, basi marginata utrinque sinuata; scutello basin versus punctulato; elytris grosse subseriatim minus crebre punctulatis, stria subsuturali sat perspicua; pygidio grosse sat crebre punctulato; tibiis anticis extus tridentatis; tarsis anticis quam tibiæ vix longioribus, posticorum articulo basali quam 2<sup>us</sup> vix longioribus; coxis posticis quam metasternum fere triplo brevioribus; segmento ventrali apicali postice haud emarginato; corpore subtus grosse punctulato. Long,  $3\frac{1}{2}$  l.; lat.,  $1\frac{4}{5}$  l.

The labrum resembles that of *O. fallax*, etc., in respect of its only slight projection from the perpendicular front face of the head but differs by its much larger size which may be expressed as follows:—Looking (from in front) at the front face of the head one sees the outline of the clypeus as an arc of a circle the altitude of which is evidently greater than the distance from the vertex of the labrum to the vertex of the perpendicular front face of the head, while in *fallax*, etc., the corresponding altitude occupies a very much smaller proportion of the front face of the head. The extremely coarse puncturation of the dorsal surface prevents the confusion of this species with any other *Ocnodus* known to me.

Western Australia: Yilgarn.

#### DIPHYLLOCERA.

*D. kirbyana*, White. Burmeister has drawn attention to the fact that the antennal flabellum of this species consists of five lamellæ according to White and of six according to Erickson. In the male there are six lamellæ of about equal length, while in the female the basal lamella is so short that its being in reality a joint of the flabellum might easily be overlooked. As White describes the male it is clear that he either counted incorrectly or had before him a species unknown to subsequent authors and distinct from that which has since borne the name *kirbyana*.

#### PACHYGASTRA.

In my tabulation of the Australian *Scricoid* genera (*loc. cit.*) this genus is distinguished by the form of its front tibiæ. It should be noted that I have described, above, a new species under the name *calorata* having front tibiæ not much different from those of *Pachygastra* but which certainly cannot be regarded as a member of that genus. I have placed it in *Frenchella*.

#### MÆCHIDIUS.

*M. raucus*, sp. nov. Late ovatus; minus convexus; minus

nitidus; piceo-niger, antennis palpisque rufis; setulis brevibus subtilibus sat crebre vestitus; capite antice sat profunde subangulatum emarginato (partis emarginatæ lobis antice rotundatis), lateribus sinuatis; prothorace quam longiori fere ut 5 ad 3 latiori, antice sat fortiter angustato, supra crebre fortiter ruguloso, lateribus crenulatis fortiter dilatato-rotundatis ante basin brevissime rectis, angulis anticis sat productis sat acutis posticis acute rectis, basi late rotundata; scutello punctulato; elytris striis circiter 9 impressis, interstitiis latis inæqualiter biserialiter granulosis, interstitiis alternis manifeste convexis; tibiis anticis extus tridentatis (dentibus inferioribus approximatis, a 3° sat remotis); tarsis robustis sat brevibus, posteriorum articulo basali quam 2<sup>us</sup> paullo longiori; unguiculis singulis ad basin appendiculis singulis gracilibus armatis. Long., 5 l.; lat., 2 $\frac{3}{4}$  l.

The form of the outline of the prothorax of this species is very distinctive, the nearest approach to it, in *Mæchidii* known to me, being found in *M. crenaticollis*, Blackb. The sides of the prothorax are extremely strongly dilatate-rounded from the front margin almost to the base, but immediately in front of the base they become quite straight (and parallel with each other). The above-mentioned character (together with other characters) places the insect in my tabulation (Tr.R.S., S.A., 1898, pp. 57, etc.) beside *M. caviceps* although the sides of the prothorax in that species are not sinuate behind the middle, the hind angles are obtuse, and there is very little superficial resemblance between the two. From *crenaticollis*, to which it has much superficial resemblance, it differs *inter alia* by the presence of quill-like appendages to its claws.

Victoria: Dividing Range.

*M. relictus*, sp. nov. Leviter ovatus; minus latus; sat convexus; sat nitidus; ferrugineus; setulis brevibus subtilibus minus crebre vestitus; capite antice sat profunde emarginato (partis emarginatæ lobis antice rotundatis), lateribus manifeste sinuatis; prothorace quam longiori fere duplo latiori, antice sat fortiter angustato, supra puncturis sat magnis mamillatis sat crebre impresso, lateribus haud crenulatis sat arcuatis, angulis anticis sat productis minus acutis posticis rotundato-obtusis, basi utrinque sinuata; scutello punctulato; elytris inæqualiter sculpturatis (in parte dorsali intervallis circiter 5 leviter convexis sat latis utrinque sat grosse punctulato-crenulatis, in parte laterali sat confuse crenulato-punctulatis); tibiis anticis extus tridentatis (dentibus inferioribus inter se approximatis a 3°,—hoc in longitudine media sito,—

sat remotis); tarsorum posticorum articulo basali quam 2<sup>us</sup> sat longiori; unguiculis singulis ad basin appendiculis singulis gracilibus armatis. Long., 3 l.; lat., 1 $\frac{3}{4}$  l.

In my tabulation of the species of *Machidius* (*loc. cit.*) this species must be placed beside *M. caviceps*, Blackb., from which it differs by, *inter alia*, its clypeus considerably less deeply excised with the lobes of the excision rounded (not externally angulate) in front, and by its elytral sculpture [which in *caviceps*, Blackb. consists of about 18 striæ,—the lateral ones scarcely defined,—the interstices scarcely and *inter se* subequally convex and obscurely seriate-granulate; while in *relictus* the elytra cannot be called distinctly striate the sculpture consisting of rows of punctures (some of them moderately, others very, large) among which are about 5 irregular distinctly elevated intervals having their sides strongly crenulate by the adjacent punctures]. In my original description of *M. caviceps* I did not mention the granulation of the elytral interstices. The granules are small and inconspicuous (less so on the sides and apical parts of the insect) and were concealed by a thin indumentum which I find was present on the typical specimen in the S.A. Museum: but inspection of the elytral interstices of a second example recently acquired by me shows the presence of fine granules.

North Queensland. Taken by Mr. Perkins.

*M. capitalis*, sp. nov. Breviter ovatus, sat convexus; subnitidus; obscure ferrugineus, antennis palpisque dilutioribus; setulis brevibus subtilibus minus crebre vestitus; capite antice obtuse truncato, lateribus vix sinuatis; prothorace gibbo, leviter transverso, antice fortiter angustato, supra confertim sat fortiter ruguloso, lateribus subcrenulatis sat arcuatis pone angulos posticos (his subrectis) excisis, angulis anticis minus productis minus acutis, basi late rotundata; scutello magno punctulato; elytris striis circiter 9 sat latis impressis, interstitiis sat latis sat planis (his utrinque punctulato-crenulatis); tibiis anticis (exempli typici) extus sinuatis haud perspicue dentatis; tibiis posterioribus 4 in parte media dente instructis (ut *M. tibialis*, Blackb.); tarsis posticis brevibus, posticorum articulo basali quam 2<sup>us</sup> vix longiori; unguiculis simplicibus. Long., 4 l.; lat., 2 $\frac{1}{5}$  l.

In my tabulation of the species of *Machidius* (*loc. cit.*) this species must be placed beside *M. rugosipes*, Blackb., from which it differs by *inter alia* its clypeus truncate in front and its prothorax scarcely transverse. Its short robust posterior tibiæ with their external face transversely carinate at about the middle of their length so that the outline appears strongly

dentate in the middle distinguish this species at once from all other *Maechidii* known to me except *tibialis*, Blackb., and *rugosipes*, Blackb.

Western Australia: Gnarlbine. Given to me by Mr. French.

## DYNASTIDES.

### PIMELOPUS.

*P. porcellus*, Er. A specimen taken on King Island must certainly, I think, be attributed to this species. It agrees with Erickson's description except in size,—being considerably smaller than the type,—and in the prothorax being considerably (not “scarcely”) narrowed in front. The size is of little importance, since other species of the genus vary greatly in this respect; and I am of opinion that Erickson was in error in respect of the prothorax. In all the *Pimelopi* known to me the actual front margin, owing to the front part of the pronotum being very strongly declivous is not in sight from certain points of view, and it is easy to place a specimen so that the prothorax appears to be wide in front; but if the prothorax be examined with the head towards the observer the front margin is seen to be in reality much narrower than the base. I cannot help thinking that this accounts for the discrepancy between the King Island example and the description of *P. porcellus*. If the front margin of the prothorax were really “scarcely” narrower than the base *P. porcellus* would, I think, stand alone in this respect among the Australian *Dynastides*,—with the exception of a few species of the very aberrant genus *Cryptodus*. The examination of a specimen so likely (on the ground of its habitat) to be the true *P. porcellus* is of interest on account of my having (Tr.R.S., S.A., 1887, p. 220) described as “*P. porcellus*, Er. (?)” a species that is certainly not identical with this King Island specimen. For this South Australian species I now propose the name *decipiens*. Its female differs from the King Island example (which is a female, as also was Erickson's type) principally in the shape of the prothorax, which is very strongly bisinuate at the base, so that the middle part appears as a very well-defined lobe; while in the King Island example the bisinuation is very feeble making the base appear as an almost continuous curve. The basal impressions of the pronotum are in *decipiens* strongly marked and in the King Island example very feeble. The striation of the elytra is notably stronger in *decipiens*.

The King Island specimen resembles *P. dubius*, Blackb. in the form of the prothorax. And here I must call attention to an unfortunate oversight in my description of the

latter species; for I passed over the description of the prothorax with the remark that that segment scarcely differed from the same in "*porcellus* (?)." At the time I had in mind other distinctions which are very strongly marked between the two species and overlooked the less conspicuous (but certainly quite obvious when attention is drawn to it) difference in the basal outline of the prothorax.

The King Island specimen agrees with *P. dubius* in having only a single transverse carina on the external face of the middle and hind tibiæ but differs from it (and agrees with *decipiens*) in the robust posteriorly-swollen form of its elytra, —which is, I suppose, what Erickson refers to when he calls the elytra of *porcellus* "*ventricosa*."

From the above remarks it appears so evident that the true *P. porcellus*, Er. (at any rate this species from King Island) is intermediate in structure between *P. decipiens* and *P. dubius* that there need be no further hesitation in associating those species generically. As the specimen from King Island does not fit well into the tabulation of specific characters of *Pimelopi* which I furnished in Tr.R.S., S.A., 1896, p. 256, it will be well to substitute the following tabulation:—

- A. Posterior tibiæ unicarinate externally.
- B. Base of prothorax subbisinate.
- C. Elytra strongly and subrugulose punctulate and swollen behind ... *porcellus*, Er.
- CC. Elytra very feebly and sparsely punctulate and subparallel ... *dubius*, Blackb.
- BB. Base of prothorax very strongly bisinate ... *sydneyanus*, Blackb.
- AA. Posterior tibiæ bicarinate externally.
- B. Elytral puncturation obsolete on lateral and subapical parts ... *crassus*, Blackb.
- BB. Elytral puncturation continuous ... *decipiens*, Blackb.

*P. decipiens*, sp. nov. This name is proposed for *P. porcellus*, Er. (?), Blackb., Tr.R.S., S.A., 1887, p. 220.

*P. dubius*, Blackb. For amendment of original description *vide supra* under heading *P. porcellus*, Er.

## CISSIDÆ.

### Cis.

*C. leanus*, sp. nov. Minus latus; vix pubescens; sat nitidus; supra brunneo-testaceus, pronoto antice sat late et in lateribus anguste elytris in sutura et latera versus incerte infuscatis; capite sat crebre minus subtiliter nec rugulose, pronoto confertim fortiter sat rugulose, elytris quam pronotum paullo minus crebre nec rugulose, punctulatis; his circa scutellum subgibbis; antennis pedibusque testaceis, horum femoribus illarum clava infuscatis; corpore subtus

(capite et prosterni lateribus exceptis) piceo, sat grosse nec profunde punctulato. Long.,  $\frac{4}{5}$ —1 l. ; lat.  $\frac{3}{10}$  l.

Easily distinguishable from the other described Australian species of the genus by its colouring and its comparatively coarse puncturation. The prothorax is rather strongly transverse,—more so than in its Australian congeners (except perhaps *C. Adalaida*, Blackb., which approaches it in this respect) and is very little produced over the head. Of the two examples before me, one (doubtless the male) has an evident though slight gibbosity in the middle of the forehead, while the forehead of the other is very flat.

## TENEBRIONIDÆ.

### HOPATRIDES.

Herr Gebien has recently called my attention to the fact that Reitter last year, in Verh. ver., Brunn, founded a new genus of *Tenebrionidæ* under the name *Mesomorphus*, to which some of the Australian species hitherto placed in *Hopatum* must be transferred. These species are distinguished from true *Hopatra* by the different vestiture of their tarsi, the obliteration of the clypeal suture, and their divided eyes. Champion had already noted the existence of this aggregate as a section of *Hopatum* possibly needing to be separated generically (Tr.E.S., Lond., 1894, p. 361), and I had myself at a still earlier date (1892) mentioned the first of them that I had seen as probably needing a new generic name. Unfortunately *Mesomorphus* is a *nom. preocc.*, having been used by Pratz in 1883 (*Mesomorpha*). As the species in question appear to me to be certainly generically distinct from *Hopatum* I propose to give them a new genus under the name *Hopatromorpha*, which I cannot ascertain to have been used previously.

### HOPATRUM.

I have before me two new species of this genus, and have recently inspected the type of *H. Mastersi*, Macl. I propose before describing the new species to furnish a tabulated statement of the characters by which the species of *Hopatum* may be distinguished *inter se*. After the removal of the species already referred to as not genuine *Hopatra* there remain ten names that seem attributable to Australian species of the genus, one of which (*H. australe*, Boisd.), I must pass over on account of its being, as Champion has already pointed out, not intelligibly described. The addition of my two new species therefore bring up the number to eleven. I have before me authentic specimens of all except one (*H. torridum*, Champ.), and I have a *Hopatum* from north-west

Australia agreeing so well with the description of *H. torridum* that I am fairly confident of having identified it correctly.

Before proceeding to the tabulation it is desirable to furnish a note on one of the group characters that will be mentioned in it, viz., "Elytral intersices unequal." In the species to which that expression applies the 3rd and 5th interstices (especially the 3rd) are distinctly more convex than the 2nd and 4th, and the 2nd and 4th (especially the 2nd) are narrower (*very much* narrower in the hinder part) than the 3rd and 5th. In the rest of the species the interstices are uniform in respect of convexity, and there is no great diversity in respect of width.

A. Elytra entirely striate.

B. Elytral interstices unequal.

C. Sides of prothorax more or less sinuate behind middle, hind angles acute.

D. Joint 8 of antennæ twice as wide as long ... .. Mastersi, *Macl.*

DD. Joint 8 of antennæ less than twice as wide as long.

E. Elytral interstices with conspicuous well-defined granules *Walkeri, Champ.*

EE. Elytral interstices closely rugulose, not granulate ... *Carpentariæ, Blackb.*

CC. Sides of prothorax absolutely non-sinuate, hind angles blunt ... *Macleayi, Blackb.*

BB. Elytral interstices uniform—at most a little diversity in width.

C. Sides of prothorax not sinuate behind middle.

D. Prothorax at its widest across base.

E. Front of clypeus with a deep angular emargination.

F. Front tibiæ stout and very strongly dilated at apex ... *Meyricki, Blackb.*

FF. Front tibiæ slender, very feebly dilated at apex ... *Elderi, Blackb.*

EE. Front of clypeus with a shallow arched emargination ... *Victoriae, Blackb.*

DD. Prothorax notably wider about middle than across base ... *misellum, Blackb.*

CC. Sides of prothorax quite conspicuously sinuate behind middle *torridum, Champ.(?)*

AA. Each elytron with only two strong striæ, the outer striæ obsolete ... *Adelaidæ, Blackb.*

AAA. Elytra without defined striation ... *cowardense, Blackb.*

*H. Mastersi*, *Macl.* This species is near *Walkeri*, *Champ.*, and *Carpentariæ*, *Blackb.* It is identical with a *Hopatrum* sent by Mr. Perkins which (before I saw *Mastersi*) I had intended to describe as new. It is easily separated from *Walkeri* by, *inter alia*, the non-granulate interstices of its elytra.

From *Carpentariae* it differs by, *inter alia*, the much stronger sinuation of the hind part of the sides of the prothorax and the 8th joint of its antennæ considerably more transverse.

*H. Macleayi*, sp. nov. Minus latum; sat opacum; piceo-nigrum, setis brevissimis vestitum; supra confertim subtilius rugulosum; clypeo a fronte discreto, antice triangulariter emarginato; oculis haud divisus; antennis modicis, articulis 8-10 sat fortiter transversis; prothorace quam longiori duplo latiori, lateribus sat fortiter explanatis sat rotundatis pone medium nullo modo sinuatis, angulis anticis minus productis minus acutis (posticis minus productis rectis), latitudine majori vix pone medium posita; elytris quam prothorax paullo latioribus, sat æqualiter sat fortiter striatis, striis quam interstitia multo magis fortiter punctulatis (illarum puncturis, præsertim postice, costulis minus perspicuis conjunctis), interstitiis convexis ( $3^{\circ}$ ,  $5^{\circ}$ ,  $7^{\circ}$  que quam cetera manifeste magis elevatis postice latioribus); tibiis anticis a basi ad apicem sat fortiter dilatatis, angulo externo apicali sat acuto. Long., 4 l.; lat., 2 l.

The form of the prothorax seems to be the most conspicuous character of this species; the rounded sides of that segment distinctly converging from a little behind the middle to the base, but without the slightest sinuation, with front angles almost obtuse and hind corners scarcely sharply right angled, are very distinctive. The only other described species known to me with the 3rd, 5th, and 7th interstices of the elytra so strongly defined is *Walkeri*, Champ., which differs widely in the form of its prothorax.

Queensland: Toowoomba (Koebele).

*H. misellum*, sp. nov. Minus latum; sat opacum; piceo-nigrum; setis brevissimis vestitum; supra sat æqualiter crebre minus subtiliter rugulosum, vix granulatum; clypeo a fronte discreto, antice triangulariter emarginato; oculis haud divisus; antennis modicis, articulis 8-10 fortiter transversis; prothorace quam longiori plus quam duplo latiori, lateribus modice explanatis minus arcuatis pone medium haud sinuatis, angulis anticis acutis posticis (superne visis) acute rectis, basi media leviter emarginata, latitudine majori paullo ante basin posita; elytris quam prothorax paullo latioribus, æqualiter sat profunde striatis, striis quam interstitia multo magis fortiter punctulatis, interstitiis convexis; tibiis anticis a basi ad apicem sat fortiter dilatatis, angulo externo apicali acuto. Long.,  $4\frac{1}{4}$ -5 l.; lat.,  $2-2\frac{1}{10}$  l.

I conjecture this to be the species mentioned by Champion (Tr.E.S. 1894, p. 359) as "perhaps" *O. villiger*, Blanch., as it is the only *Hopatrum* that I have found in the neighbourhood of Port Adelaide (Champion's locality). However that may be, it is I think certainly not *H. villiger*, the elytral striæ of which are described as "without puncturation," and which moreover is said to be from "Raffles Bay" a locality on the north coast of Australia. It is nearer I think to the species that I have no doubt is *H. torridum*, Champ., than to any other described *Hopatrum*, but is readily distinguishable from it by, *inter alia*, the evidently convex interstices of its elytra, and its less opaque dorsal surface.

South Australia (widely distributed).

#### HOPATROMORPHA.

(Gen. nov. *Tenebrionidarum*; = *Mesomorphus*, Reitter, *nom. præocc.*)

Australian species of this genus have been described, I believe, under six names. The first of them is *Hopatrum villiger*, Blanch., the description of which points to its place being here. I have received, moreover, from Herr Gebien a specimen under that name which is undoubtedly a member of this genus, and it agrees fairly well with Blanchard's description. In 1892 I described a second species under the name *Hopatrum longicorne* (from Central Australia). In 1894 Champion described two species (*Hopatrum dispersum* and *vagabundum*) in the Tr.E.S., Lond., and I described (published a few months later than Champion's names) two species (*H. darlingense* and *Darwini*). The species sent by Gebien as *villiger*, Blanch., is identical with that sent to me by its author as *dispersum*, Champ. *Dispersum* is from Port Darwin; *villiger* was described from Raffles Bay; two adjacent localities. Neither *darlingense* nor *Darwini* appears to be identical with either of Champion's species, although *vagabundum* and *Darwini* are probably somewhat close to each other. I have already (Tr.R.S., S.A., 1894, p. 218) pointed out distinctions between the two,—the former of which I have not seen and I may now add the further note that Champion calls joints 9 and 10 of the antennæ of *vagabundum* "transverse" (without qualification) whereas those joints in *Darwini* are "vix transversis" (unfortunately printed in my description "vix convexis"), and moreover the seriate elytral punctures of *Darwini* are so conspicuously very much larger than those of *dispersum*, Champ. (which indeed are almost non-existent) that Champion could not possibly have failed to refer to that distinction in differentiating *vagabundum* from *dispersum* if *vagabundum* had been my *Darwini*.

The following table shows the characters which seem to me most conveniently to be used for distinguishing *inter se* the species of this genus.

- A. Prothorax strongly transverse (about twice as wide as long).  
 B. Ocular canthi wide (as wide as the eye, at least in *Darwini*).  
 C. Elytral interstices granulate.  
   Joints 9 and 10 of antennæ transverse ... .. vagabunda, *Champ.*  
 CC. Elytral interstices non-granulate.  
   Joints 9 and 10 of antennæ not distinctly transverse ... .. *Darwini*, *Blackb.*  
   { dispersa, *Champ.*  
 BB. Ocular canthi much narrower ... .. villigera, *Blanch. (?)*  
 AA. Prothorax less transverse (about as 5 to 3).  
 B. Elytral striæ quite strongly impressed ... .. darlingensis, *Blackb.*  
 BB. Elytral striæ scarcely impressed (almost mere rows of faint punctures) ... .. longicornis, *Blackb.*

*H. darlingensis*, *Blackb.* Specimens of this insect have been sent to me by Mr. Carter, of Sydney. He writes that they were sent to him by Judge Docker of Walgett, who reported the insect as occurring in great plenty in his neighbourhood. This is to me an interesting note, as I had previously seen only two examples of the species.

## HELÆIDES.

### PTEROHELÆUS.

I have several interesting new species of *Pterohelæus* recently acquired in my collection appertaining to the group which Macleay in his monograph of the genus calls the 2nd subsection of the 2nd section, characterized thus:—"Form more elongate; elytra seriate-punctate, their interstices granulose." It seems desirable to make the opportunity of describing them an occasion for a revision of the group and for placing in tabular form an indication of the distinctive characters of its species. Macleay's monograph supplies merely descriptions of seven species without any tabular arrangement, while an eighth species (*P. squalidus*) decidedly belonging to this subsection is attributed to the preceding one with a note that it is perhaps wrongly placed. Since Macleay's monograph was published I have described a single species (*insignis*) of this subsection. Three species of *Pterohelæus* have been described by Lea, but without information as to which of Macleay's aggregates they appertain to; as, however, the descriptions contain no mention of elytral granules it is presumable that they are not members of the sub-

section that I am now dealing with. At the present time, then, species attributable to this aggregate have been described under nine names. Of these nine names one (*P. Guerini*, Brême) cannot be confidently identified with any insect by the description, which however (such as it is) would fit *P. tristis*, Germ., fairly well. (Germar's the later name.)

The following table shows characters by which the *Pterohelæi* of this group can be distinguished *inter se*, with the exception of *P. Guerini*, Brême, concerning which there is not sufficient information available for its inclusion:—

- |  |                                |
|--|--------------------------------|
| A. Joint 6 of antennæ not or but little dilated on outer margin, never decidedly transverse. |                                |
| B. Alternate striæ of elytra much deeper than the other striæ ... ..                         | insignis, <i>Blackb.</i>       |
| BB. Elytra not having alternate striæ deeper than the rest.                                  |                                |
| C. Elytra much more nitid than CC.   |                                |
| D. Lateral margins of pronotum very feebly explanate ... ..                                  | simplicicollis, <i>Blackb.</i> |
| DD. Lateral margins of pronotum strongly explanate.  |                                |
| E. At least all the alternate interstices of elytra conspicuously and regularly granulate.   |                                |
| F. Prothorax twice as wide at base as in front. Size large                                   | granuliger, <i>Macl.</i>       |
| FF. Prothorax much less narrowed in front. Size moderate ... ..                              | regularis, <i>Blackb.</i>      |
| EE. Front and inner parts of elytra not (or only sparsely) granulate.                        |                                |
| F. Pronotum sparsely and faintly punctulate.   |                                |
| G. Size large. Surface only moderately nitid. Lateral area of pronotum wide and flat ... ..  | tristis, <i>Germ.</i>          |
| GG. Size small. Surface quite nitid. Lateral area of pronotum narrower and concave ... ..    | nitidiusculus, <i>Macl.</i>    |
| FF. Pronotum closely and strongly, though finely, punctulate ... ..                          | gracilicornis, <i>Blackb.</i>  |
| CC. Elytra notably more opaque.  |                                |
| D. Explanate margin of elytra wide (at base as wide as apex of front tibia) ... ..           | granulatus, <i>Germ.</i>       |
| DD. Explanate margins of elytra much narrower.   |                                |
| E. Ventral segments with scarcely any trace of longitudinal wrinkles ... ..                  | ventralis, <i>Blackb.</i>      |

- EE. Ventral segments with plentiful longitudinal wrinkles ... subgeminatus, *Macl.*
- AA. Joint 6 of antennæ strongly dilated on outer margin, transverse.
- B. Disc of pronotum conspicuously granulate-rugulose ... .. squalidus, *Macl.*
- BB. Disc of pronotum not granulate-rugulose.
- C. Front of pronotum very feebly emarginate, and having rounded very feeble angles ... .. bullatus, *Pasc.*
- CC. Front of pronotum much more emarginate, with prominent angles (as in *granulatus*, Germ.).
- D. Width of prothorax considerably more than twice length ... brevicornis, *Blackb.*
- DD. Width of prothorax scarcely twice length ... .. puer, *Blackb.*

*P. simplicicollis*, sp. nov. Sat parallelus; subnitidus; sat convexus; nigro-piceus, marginibus antennis palpis pedibusque rufescentibus; antennis modicis (articulis  $6^\circ$  quam latior longiori extus haud dilatato,  $7^\circ$ - $10^\circ$  transversis extus fortiter dilatatis); capite crebre subtiliter, prothorace supra vix manifeste, punctulatis; hoc quam longior plus (quam trans apicem vix plus) quam duplo latiori, supra vix manifeste canaliculato, marginibus lateralibus minus latis a disco parum discretis, margine antico sat late minus fortiter emarginato, angulis anticis sat rotundatis posticis valde acutis; elytris seriatim subfortiter punctulatis, interstitiis alternis granulis nitidis (his antice perparvis, apicem versus gradatim multo majoribus) ornatis, margine laterali angusto (quam *P. granulati*, Germ., multo angustiori); corpore subtus sat nitido; abdomine latera versus strigato. Long., 7 l.; lat.,  $3\frac{1}{2}$  l.

Remarkable for the expanded margins of its pronotum being narrower and less clearly distinguishable from the disc than is usual among its allies. The expanded margin of its elytra also is very narrow, much narrower than in, e.g., *P. bullatus*, Pasc. The shining granules form complete rows on the alternate interstices of the elytra, but they are extremely minute on the front part and even more so near the suture than near the lateral margins.

South Australia: Eyre Peninsula. Taken by the late Mr. J. Anderson.

*P. regularis*, sp. nov. Sat parallelus; minus opacus; modice convexus; nigro-piceus, marginibus antennis palpis pedibusque rufescentibus; antennis modicis (articulis  $6^\circ$  vix transversis extus vix dilatato,  $7^\circ$ - $10^\circ$  sat transversis extus fortiter dilatatis); capite crebre subtiliter, prothorace

supra sparsius subtilissime, punctulatis; hoc quam longior plus (quam trans apicem paullo minus) quam duplo latiori; supra vix manifeste canaliculato, marginibus lateralibus sat latis manifeste concavis bene definitis antice modice angustatis, margine antico late minus fortiter emarginato, angulis anticis obtusis posticis acutis; elytris seriatim subfortiter punctulatis, interstitiis alternis aequabiliter sat crebre granulis nitidis insignibus, margine laterali sat angusto (quam *P. granulati*, Germ., multo angustiori); corpore subtus sat nitido; abdomine latera versus strigato. Long., 7-8 l.; lat.,  $3\frac{1}{2}$ -4 l.

A somewhat nitid species notable for the extremely regular rows of conspicuous shining granules that adorn the alternate interstices of its elytra. The emargination of the front of its prothorax is decidedly wide and feeble as compared with that of some *Pterohelæi*. A specimen in my collection differs from the type in being of narrower form, with the elytra a trifle less nitid and the granules smaller. The difference is perhaps sexual.

New South Wales: Narrabri, etc.

*P. bullatus*, Pasc. The *habitat* of this species is curiously given as "South Australia (Queensland)." The description is much too scanty to be satisfactory (*e.g.*, no information as to the antennal structure, or the width of the explanate margins of the different parts). The large size and elytral granulation, however, distinguish it from most of the *Pterohelæi*, and as I have in my collection specimens from Queensland which agree very well with the description I have not much hesitation in identifying them with it. I have also a *Pterohelæus* from South Australia, which is extremely close to it and possibly furnishes the explanation of Pascoe's statement of *habitat*, though I doubt its being really identical specifically, on account of its being of still narrower form and with somewhat different elytral granulation; but without seeing more specimens it would not be well to give it a separate name. Champion attributes *P. bullatus* to Western Australia (Tr.E.S., Lond., 1894, p. 383), but I feel some doubt as to this reference being correct.

*P. gracilicornis*, sp. nov. Latus; minus parallelus: subnitidus; minus convexus; nigro-piceus, marginibus antennis palpis pedibus elytrorumque granulis plus minusve rufescentibus: antennis sat gracilibus, (articulis  $6^{\circ}$   $7^{\circ}$  que quam latiores longioribus extus hoc vix illo haud dilatatis,  $8^{\circ}$ - $10^{\circ}$  transversis extus leviter dilatatis): capite prothoraceque crebre subtilius (nullo modo obscure) punctulatis; hoc quam longior (et postice quam antice) plus quam duplo latiori, supra nullo modo canaliculato,

marginibus lateralibus minus latis bene definitis fortiter concavis, margine antico profunde sat anguste emarginato, angulis anticis obtusis posticis leviter acutis; elytris leviter striatis, striis subtiliter profunde punctulatis, interstitiis alternis apicem versus granulis minutis nonnullis (his nonnihil rufescentibus) ornatis, margine laterali lato (quam *P. granulati*, Germ. nonnihil latiori); corpore subtus nitido: abdomine fere toto strigato. Long., 5 l.; lat., 3 l.

A species of broader and less parallel form than is usual in this group, resembling in outline the species that I take to be *P. peltatus*, Er. The granules on the elytra are confined to the subapical portion and are extremely small and inconspicuous.

Western Australia: Coolgardie and other localities.

*P. ventralis*, sp. nov. Sat parallelus; sat opacus; minus convexus; nigro-piceus, marginibus antennis palpis pedibusque rufescentibus; antennis modicis (articulis 6° quam latior longiori extus parum dilatato, 7° vix transverso extus sat dilatato, 8°-10° fortiter transversis extus fortiter dilatatis); capite crebre subtiliter, prothorace supra subtilissime minus crebre, punctulatis; hoc quam longior (et postice quam antice) plus quam duplo latiori, supra haud vel vix manifeste canaliculato, marginibus lateralibus fere ut *P. granulati*, Germ. (i.e., latis, sat planis, intus male definitis), margine antico sat anguste sat profunde emarginato, angulis anticis subrotundatis posticis sat acutis; elytris seriatim nonnihil geminatim minus fortiter punctulatis, interstitiis alternis granulis parvis nitidis sat æquabiliter ornatis, margine laterali angusto (quam *P. granulati*, Germ., multo angustiori); corpore subtus sat nitido; abdomine latera versus vix manifeste strigato. Long., 8 l.; lat., 3½ l.

Allied to *P. granulatus*, Germ., but very distinct from it by the lateral margins of its elytra much less widely explanate: differs from *granulatus* also by, *inter alia*, its larger size, more elongate build, front of prothorax more narrowly emarginate, and with more rounded angles, elytra with more numerous granules, ventral segments almost without longitudinal wrinkles, etc.

Western Australia: Coolgardie, etc.

*P. brevicornis*, sp. nov. Elongatus; sat parallelus: sat opacus; minus convexus; piceus, antennis palpis marginibus pedibus et corpore subtus plus minusve rufescentibus: antennis brevibus (articulis 6° quam latior haud longiori extus fortiter dilatato, 7°-10° fortiter transversis extus

fortiter dilatatis); capite prothoraceque supra subtiliter sat crebre punctulatis; hoc quam longior duplo (postice quam antice dimidia parte) latiori, supra vix perspicue canaliculato, marginibus lateralibus latis (fere ut *P. granulati*, Germ.) extus manifeste reflexis intus manifeste definitis, margine antico sat profunde emarginato, angulis anticis obtusis posticis acutis; elytris seriatim subtiliter punctulatis, interstitiis planis (alternis granulatis), granulis parvis (his scutellum versus minutissimis), margine laterali sat angusto (quam *P. granulati*, Germ., multo angustiori); corpore subtus sat nitido. Long.,  $6\frac{1}{2}$  l.; lat., 3 l.

This species is readily distinguishable, in the aggregate having the 6th joint of the antennæ strongly dilated, by its very short antennæ, depressed form, flat elytral interstices, and very fine elytral granules,—the latter almost obsolete in the scutellar region. Its prothorax resembles that of *P. bullatus*, Pasc.

Central Australia. From the collection of the late J. Anderson.

*P. puer*, sp. nov. Sat parallelus; minus opacus; sat convexus; ferrugineus vel piceo-ferrugineus, marginibus antennæ palpis pedibus et corpore subtus dilutioribus; antennæ sat brevibus (articulis  $6^\circ$  quam latior haud longiori extus sat fortiter dilatato,  $7^\circ$ - $10^\circ$  fortiter transversis extus fortiter dilatatis); capite subtiliter, prothorace supra subtilissime, sat crebre punctulatis; hoc quam longiori vix plus quam duplo (postice quam antice dimidia parte) latiori, supra vix vel haud manifeste canaliculato, marginibus lateralibus latis (fere ut *P. granulati*, Germ.) extus perspicue reflexis intus bene definitis, margine antico sat profunde emarginato, angulis anticis obtusis posticis acutis; elytris seriatim sat subtiliter punctulatis, interstitiis alternis leviter convexis sat æquabiliter sat crebre granulis nitidis insignibus, margine laterali sat angusto (quam *P. granulati*, Germ. multo angustiori); corpore subtus sat nitido; abdomine latera versus crebre strigato. Long.,  $6\frac{1}{2}$ -7 l.; lat., 3- $3\frac{1}{5}$  l.

Allied to *P. bullatus*, Pasc., from which it differs by *inter alia* its smaller size, its prothorax less transverse more narrowed and more deeply emarginate in front and with much better defined front angles, the alternate interstices of its elytra more distinctly convex, and the 6th joint of its antennæ scarcely transverse. In some examples the elytra have a slightly bronzy tone.

Western Australia. Apparently widely distributed.

## LONGICORNES.

## MACRONES.

*M. Besti*, sp. nov. Elongatus; rostro testaceo; palpis obscure brunneis; antennis nigris apicem versus nonnihil picescentibus; capite postice nigro, pone oculos fortiter transversim rugato; prothorace nigro obscure rufescenti, quam latiori sublongiori, subtiliter aspero, tripartito, (hoc superne viso parte antica sat æquali ad latera dilatata; parte media fortiter elevata, in medio late profunde longitudinaliter sulcata, disco utrinque obsolete bituberculato, angulis posticis subdentiformibus, lateribus valde rotundato-dilatatis; parte postica minus brevi,—fere ut *M. rufi*, Saund.); scutello nigro; elytris pallide testaceis, sutura margine laterali lineisque discoidalibus 2 costiformibus, parte subsuturali lævi parte externa crebre sat fortiter punctulata; pedibus rufis, femoribus posticis in medio tibiis (basi summa et parte apicali exceptis) tarsisque anterioribus 4 infuscatis; sternis obscure rufis, abdomine (segmento basali albido excepto) rufo; femoribus nonnihil subclavatis, fere ut *M. rufi*, Saund. Long., 12 l.; lat.,  $1\frac{2}{3}$  l.

Easily distinguishable from the other described species of the genus by its colouring. Apart from colouring and size the known species of *Macrones* resemble each other rather closely. The following characters in combination, however, separate the present species satisfactorily from the rest (except *subclavatus*, Pasc. which I do not know, but which is very differently coloured): eyes large (as in *rufus*), and round; head very strongly wrinkled transversely in hind part; intermediate area of pronotum widely and equally sulcate in its whole length and having its sides roundly dilated; basal area of pronotum as long as in *rufus*; femora comparatively robust and subclavate (as in *rufus*). In respect of colouring, the head and prothorax black or dark piceous with the muzzle testaceous (almost whitish) separate this *Macrones* from all the others yet described.

Victoria: Buffalo Mount: taken by Messrs. Best and French, jun.

## PHYTOPHAGA.

## PAROPSIS.

*P. acclivis*, sp. nov. Mas. Sat late subovata, minus convexa, altitudine majori (a latere visa) sat longe pone marginem medium posita; modice nitida; ferruginea, elytris verrucis nigris ornatis, corpore subtus nigro rufo-variegato, antennis basi excepta obscuris; capite inæquali minus subtiliter sat rugulose punctulato, basin summam versus

nigricanti; prothorace quam longiori ut  $2\frac{4}{5}$  ad 1 latiori, ab apice sat longe ultra medium dilatato, crebre sat fortiter (ad latera grosse rugulose) punctulato, lateribus fortiter arcuatis, late leviter deplanatis, angulis posticis nullis; scutello sublævi; elytris sub callum humeralem depressis, pone basin transversim leviter impressis, crebre fortiter sat seriatim (ad latera paullo magis, postice paullo minus, grosse) punctulatis, verrucis (his a basi ad apicem continuis) nonnullis elongatis nonnullis rotundatis instructis, interstitiis sat rugulosis, parte marginali a disco (per sulculum minus perspicua) indeterminate divisa, calli humeralis margine interno a sutura quam ab elytrorum margine sat multo magis distanti; segmento ventrali basali (hoc rufo) sparsim subtiliter punctulato; antennarum articulo 3<sup>o</sup> quam 4<sup>us</sup> paullo longiori. Long.,  $5\frac{1}{2}$  l.; lat.,  $3\frac{1}{2}$  l.

In Proc. Linn. Soc., N.S.W., 1901 (p. 160), I furnished a classification of the groups into which it appeared to me that the genus *Paropsis* could conveniently be divided. The present species appertains to Group iii. as there characterized. In *loc. cit.* 1896 (p. 643) I divided that group into sub-groups of which sub-group ii. must receive this species. In *loc. cit.* (pp. 653-657) I tabulated the then known species of this sub-group and in that tabulation the present species must be placed beside *P. comma*, Blackb., from which it may be thus distinguished:—

- KK. Form much less wide; elytra less rounded at sides.
- L. Greatest height of the insect (viewed from the side) not behind middle of elytral margin ... .. *comma*, Blackb.
- LL. Greatest height of the insect (viewed from side) considerably behind middle of elytral margin ... .. *acclivis*, Blackb.

I have no doubt that this distinction is shared by the female (which I have not seen). The greatest height of the insect is placed further from the base than in any other nearly allied species. It also differs from *P. comma* in numerous other respects, *e.g.*, larger size, narrower build, humeral callus much nearer lateral margin of elytra, absence of markings on the pronotum, sides of pronotum less distinctly (though not less widely) explanate, evidently closer punctura-

tion of elytra. Compared with *P. serpiginosa*, Er., it is much larger, with its pronotum much more widely explanate, etc.,—besides differing by the character tabulated above. From *P. baldiensis*, Blackb., it differs *inter alia multa* by the extreme feebleness of the post-basal impression on its elytra, and from *P. Sloanei* (also somewhat like it superficially) by *inter alia* the presence of a well-marked depression below the humeral callus. It should be added that the elytra of this insect are more or less clouded with a darker colour than that of the general surface, giving them in some examples a blotchy appearance, which obscures the verrucæ.

King Island (Mr. Lea).

#### ARSIPODA.

Specimens of an *Arsipoda* taken by Mr. Lea on King Island appear on a first inspection to differ from *A. variegata* more definitely than is consistent with their representing a mere variety. Nevertheless, comparison with specimens which I have taken in Victoria and New South Wales and have been unable to distinguish from *variegata* by any satisfactory character, leads me to the conclusion that it would not be justifiable to treat these insular examples as a good species. I have from the Blue Mountains specimens which are distinctly intermediate in shape, colouring, and sculpture between those from King Island and ordinary Tasmanian specimens. It is of course possible that there are at least three or four very closely allied species very limited in habitat, of which *variegata* is one, but I cannot satisfy myself that that is the case. The present form may be characterized as follows:—

*A. kingensis*, Blackb. (? *variegata*, Waterh., var.). *Quam forma normalis magis angusta, magis ovata; colore magis pallida (antennis fere totis testaceis); pronoto magis fortiter punctulato.*

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#### APPENDED NOTE.

Since writing my remarks on *Anodontonyx nigrolineata*, Boisd. I have examined a specimen in the Macleay Museum bearing a ticket in the handwriting of Mr. W. S. Macleay "*Sericesthis nigrolineata*, Macl." As W. S. Macleay was a contemporary of Boisduval and is quoted in Dejean's *Cat.* as authority for the name *nigrolineata* I have little doubt that Boisduval's name was taken from a specimen considered identical with that I am referring to. The specimen in the Macleay Museum bearing Macleay's label is specifically identical with that which was sent to me from Berlin as the type of *Scitala languida*, Er. This evidence seems to be

finally conclusive in confirming the identity of *Anod. (Seric.) nigrolineata*, Boisd. and *Anod. (Seric.) languida*, Er. The Macleay Museum also possesses a specimen ticketed in W. S. Macleay's writing "*Sericesthis sublineata*, Macl." Although I cannot find any description to have been published under that name it may be well to note here that the specimen in question is merely a slight colour-var. of *A. nigrolineata* differing from the type by the feebleness of the black lines on its elytra.